

## **Appendix D – Resource Agency Materials**



Commonwealth of Kentucky  
**Transportation Cabinet**  
Frankfort, Kentucky 40622

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Secretary of Transportation

Paul E. Patton  
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December 6, 2002

(See Attached List)

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«Title»  
«Organization»  
«Address1»  
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«City» «State» «Zip»

Dear «Letter\_Title» «Last\_Name»:

Subject: Planning Study  
Lyon, Caldwell, Hopkins, Webster and Henderson Counties  
I-69 Eddyville to Henderson  
Item No. 2 – 69.10

We are requesting your agency's input on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet has assembled a study team to evaluate the proposed reconstruction of the Wendell H. Ford (Western Kentucky) Parkway and the Edward T. Breathitt (Pennyriple) Parkway between Eddyville and Henderson to become part of the national Interstate 69 (I-69) corridor. This is Section of Independent Utility (SIU) No. 5 of the national I-69 corridor which connects Port Huron, Michigan at the Canadian border to the Lower Rio Grande Valley of Texas at the Mexican border. The study is currently in the initial data gathering stage.



«Letter\_Title» «Last\_Name»

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We ask that you identify specific issues or concerns of your agency that could affect the development of the project. This planning study will include a scoping process for the early identification of potential alternatives, environmental issues, and impacts related to the proposed project. We believe that early identification of issues or concerns can help us develop highway project alternatives to avoid or minimize negative impacts.

We respectfully ask that you provide us with your comments by January 30, 2003 to ensure timely progress in this planning effort.

During the development of this planning study, comments will be solicited from Federal, state, and local agencies, as well as other interested persons and the general public, in accordance with principles set forth in the National Environmental Policy Act (NEPA) of 1969. The Federal Highway Administration is partnering with us in these efforts. A copy of a public notice placed in state and local newspapers concerning this project is attached.

Other Transportation Cabinet offices or consultants working on behalf of the Transportation Cabinet may also contact you seeking more detailed data or information to assist them in completing their environmental studies for this phase of the project.

We have enclosed the following project information for your review and comment:

- A summary overview for the study including a project location map.
- Year 2001 Traffic
- Year 2030 Traffic
- Accident Information by Accident Severity Issues
- Environmental Issues
- Existing Parkway Conditions and Options for I-69

«Letter\_Title» «Last\_Name»

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We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Jim Wilson of the Division of Planning at 502/564-7183 or [jimmy.wilson@mail.state.ky.us](mailto:jimmy.wilson@mail.state.ky.us). Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 125 Holmes Street, Frankfort, KY 40622

Sincerely,



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AC:JCW:RC

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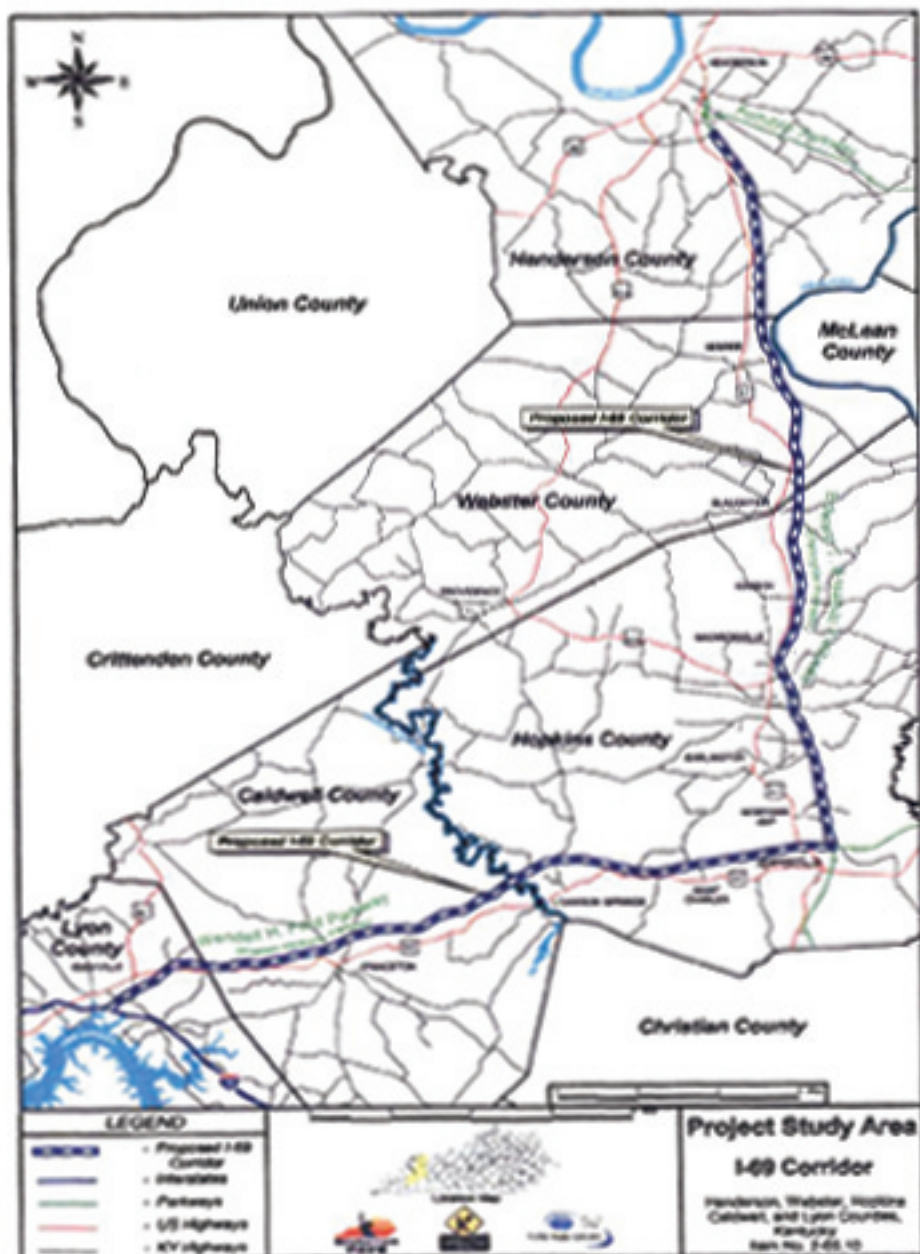
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**Project Study Area**  
Strategic Corridor Planning Study for I-69



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You may also look for project information at:

<http://www.kytc.state.ky.us/planning/index.shtm>

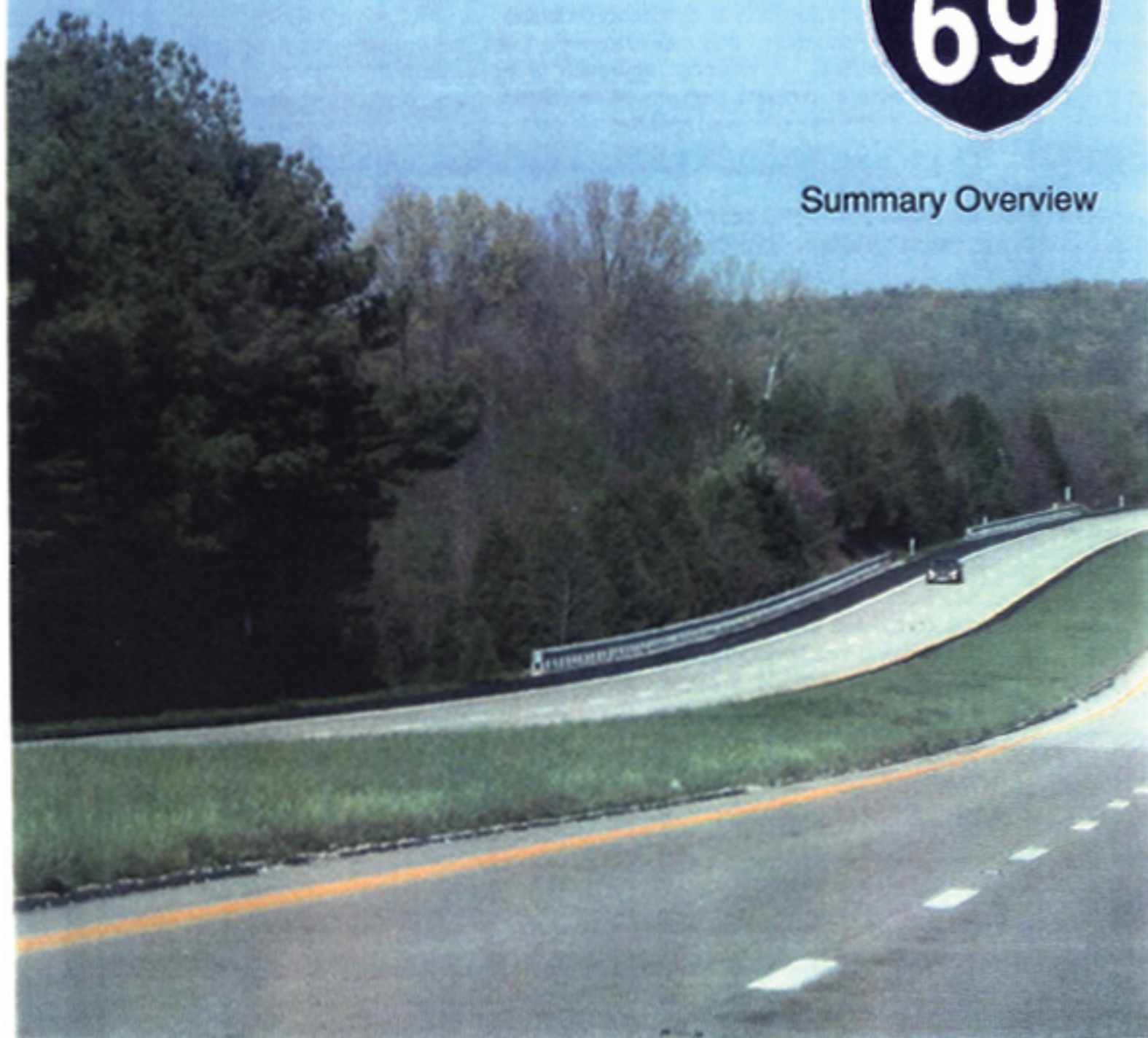


KENTUCKY TRANSPORTATION CABINET

**Strategic Corridor Planning Study for I-69**  
Eddyville to Henderson, Kentucky



Summary Overview





### I-69 Project Background

A national study was completed in 1993 which determined that construction of I-69 from Canada to Mexico was a worthwhile project to pursue. The I-69 Corridor (Corridor 18) consists of an extension of existing I-69 from Port Huron, Michigan to the Texas/Mexico border. With a total length of over 1600 miles, the added sections of I-69 will require many years to construct. This length makes it impossible to approach the project as a single construction effort. The types of work to be done vary from location to location and include widening, reconstruction, relocation and development of entirely new facilities. A practical approach is to complete a series of projects that are all consistent with the overall purpose and need for I-69.

### I-69 National Approach

The extension of I-69 from Michigan to the Texas/Mexico Border will require a series of individual linking projects. The segment between Eddyville and Henderson is one of 32 such projects. This planning study will help to identify where and how this link should be created.

In order to approach this in a realistic manner, the I-69 corridor is broken into workable segments, each of which can be constructed in a reasonable time frame by the state or states involved. If improved, each of these Sections of Independent Utility (SIU) must be able to stand on its own, whether adjacent sections are completed or not. A given section may be in place for several years before an adjacent section is completed and open to traffic; hence the concept of having independent utility. The process of defining these sections involves identifying a highway project that meets a number of principles and criteria.



The extension of I-69 from Michigan to the Texas/Mexico Border will require a series of individual linking projects. The segment between Eddyville and Henderson is one of 32 such projects. This planning study will help to identify where and how this link should be created.



### Comparing Alternates

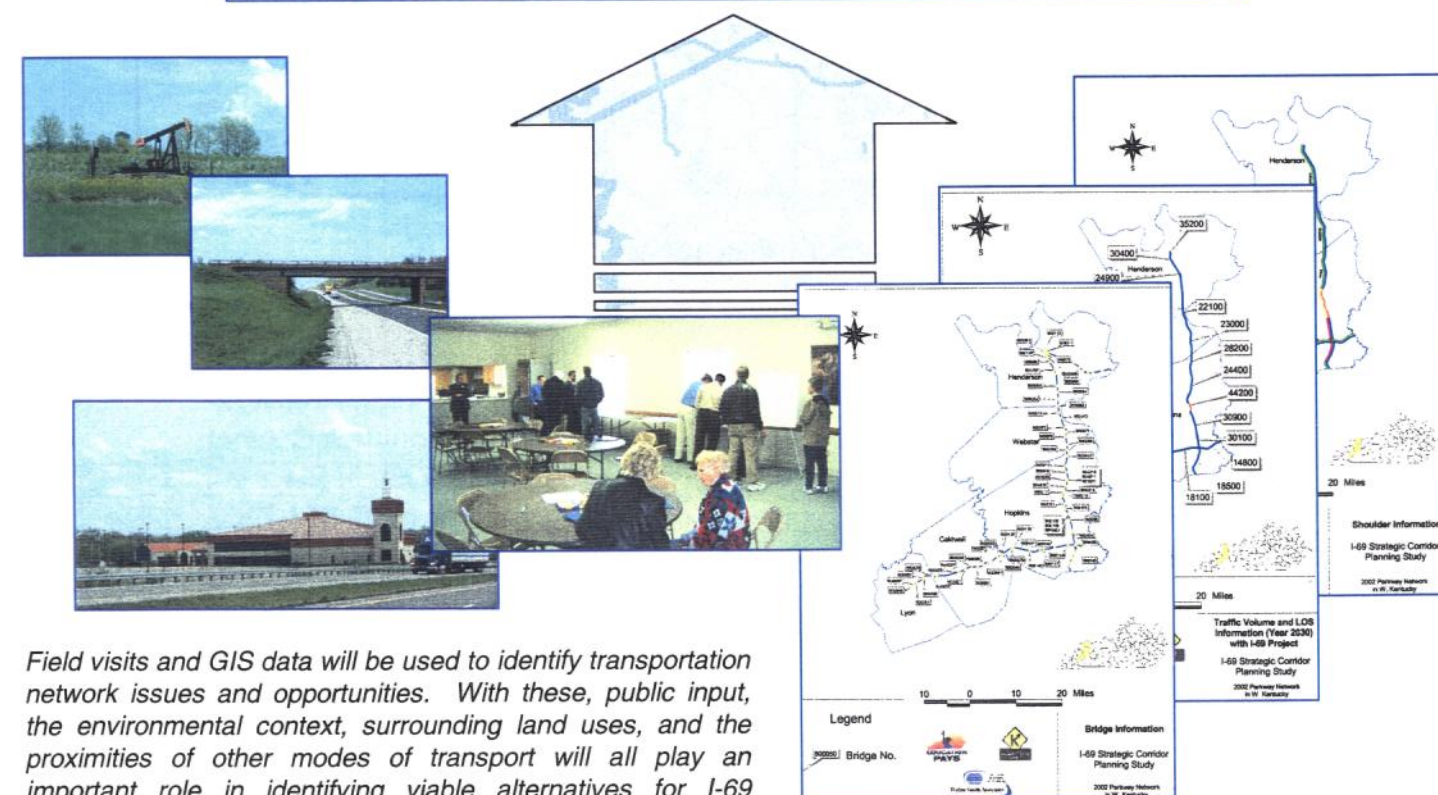
The comparing of alternatives will be based on all gathered information, as well as input received throughout the planning process. Using GIS and an array of data sources, information on the current network can be gathered and used to identify potential alternates for the Eddyville to Henderson I-69 segment. After selecting a set of potential alternatives, they can be evaluated in terms of cost, potential impacts, potential benefits and public desires.



### Evaluation

The alternative improvements will be evaluated relative to environmental issues, travel/economic benefits, public and resource agency comments, costs and engineering feasibility. Current design standards along the parkways do not meet typical interstate design standards. In particular, major bridges and interchanges will need to be considered and cost estimates developed for expanding or replacing these features. These structures are of special concern due to the funding required to bring the structures up to interstate design standards. More specifically, the widening and increasing of vertical clearance create major concerns.

### Identification of Alternative Improvements



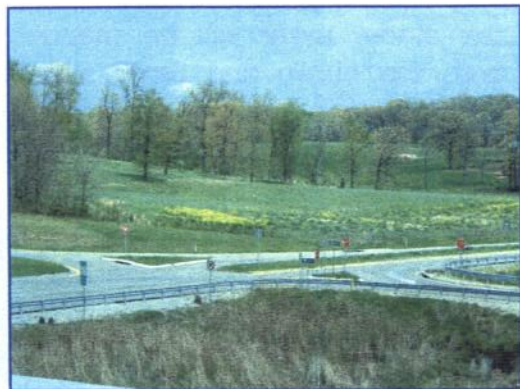
Field visits and GIS data will be used to identify transportation network issues and opportunities. With these, public input, the environmental context, surrounding land uses, and the proximities of other modes of transport will all play an important role in identifying viable alternatives for I-69 between Eddyville and Henderson, Kentucky.



## Current Corridor Data

### Logical Termini

The termini, or beginning and ending, of this section were selected to permit consideration of alternative alignments south of Henderson while connecting with I-24 near the end of the Wendell H. Ford (Western Kentucky) Parkway. Options will be considered for improvement of the Edward T. Breathitt (Pennyrite) Parkway and the Wendell H. Ford (Western Kentucky) Parkway to I-24 near the Tennessee River and the Land Between-the-Lakes.



### Independent Utility

This section has independent utility because it permits analysis of a southwest-to-northeast interstate routing across western Kentucky connecting I-24 and the Henderson Bypass (KY 425). It would provide a usable section of interstate-type roadway even if other sections of I-69 were not completed.

### Other Planned Improvements

This study will also consider how improvements along the parkways become part of the I-69 Corridor and other highway projects in the region.

### Preliminary Goals and Objectives

The initial set of national goals for I-69 include:

1. The movement of goods;
2. Provide more job opportunities to local communities; and
3. System linkage.

Consideration will be given to integrating these national goals with the local needs and concerns identified for the Eddyville to Henderson segment. At the first project team meeting, preliminary project goals considered included:

1. Maximize the use of existing parkways;
2. Serve local industry; and
3. Provide an improved facility for increasing truck traffic.

## Public and Agency Input

A series of meetings and coordination activities will occur through the course of this study to inform and obtain input from local officials, public agency representatives, other stakeholders and the general public. It is anticipated that two full rounds of meetings will occur through the course of the project. The first round of meetings will take place at the beginning of the project and seek to obtain input on options and issues.

The second round of meetings will likely occur after the corridor has been studied and evaluated, but prior to the finalization of corridor recommendations. A final wrap-up meeting may be held at the conclusion of the study to present the final recommendations and next steps in the project development process. Input opportunities include:

- KYTC Project Team Meetings;
- Local Officials/Local Interest Meetings;
- Public Meetings; and
- Outreach to the general public as well as low-income and minority populations.

Project status reports will be given at these meetings, as well as posted on the KYTC project website.

Through the public involvement process, a set of project goals will be identified that can serve as an evaluation measure throughout the development of the project.





## Environmental Research and Analysis

The environmental overview seeks to identify known environmental issues based upon publicly available data sources that can be obtained and developed for analysis purposes. Study team members will conduct a cursory field review (windshield survey) along the existing corridor and connecting side roads as needed. In addition, information relating to potential environmental issues will be obtained from the public via public questionnaires as well as federal, state and local databases. Results of the environmental overview are then mapped using Geographic Information System (GIS) software.

The Environmental Overview of the corridor will be documented in a separate technical report. Where appropriate, generalized recommendations will be offered on future measures that can be taken to avoid, minimize, mitigate and/or enhance the potential effects of corridor development on known environmental issues. Environmental concerns should be reduced since the majority of corridor improvements will be made within the existing right-of-way or immediately adjacent to the existing parkways.

### Environmental Factors to be Identified and Analyzed

- Social, Economic and Environmental Justice
- Historic and Archaeological Sites
- Natural Features and Waterways
- Prime and Unique Farmland
- Floral and Faunal Communities
- Threatened and Endangered Species
- Hazardous Materials, UST's, Oil and Gas Wells
- Geotechnical, Karst and Mining
- Air Quality
- Noise
- Others, as appropriate



## Eddyville To Henderson Planning Study

The Kentucky Transportation Cabinet (KYTC) is undertaking this planning study for the I-69 corridor from Eddyville, Kentucky to Henderson, Kentucky to determine more definite and detailed alternatives for this segment of the new I-69 corridor. This study will identify and evaluate potential alternatives for improving the Wendell H. Ford (Western Kentucky) and Edward T. Breathitt (Pennyrile) Parkways from I-24 near Eddyville to KY 425 at Henderson. It will identify and evaluate environmental factors, and social and economic constraints, as well as document and consider public and official comments, suggestions, and insight.

The planning study area passes through portions of Lyon, Caldwell, Hopkins, Webster and Henderson Counties in Kentucky. This study will coordinate with the on-going study of a proposed I-69 corridor in the Evansville-Henderson area. The Evansville-Henderson I-69 study will identify the proposed location for the Ohio River Crossing and will likely have a southern terminus at the Edward T. Breathitt (Pennyrile) Parkway south of Henderson, Kentucky. The Eddyville to Henderson study will consider and address the connections to other major roadways in the project area.

The anticipated analysis will involve consideration of all viable alternatives for the improving the existing parkways.

### Local Segment

This particular section is denoted as SIU No. 5 in the I-69 (Corridor 18) Special Environmental Report. SIU No. 5 spans between Eddyville, Kentucky and Henderson, Kentucky. When complete, this project will provide a connecting link in the multi-state I-69 corridor on the National level.

## Components of the Planning Study

**Transportation Network** – Information on highways and traffic conditions within the corridor will be collected and analyzed. This includes obtaining highway system data available from the KYTC, collecting aerial photography from available sources, and assembling United States Geological Survey (USGS) topographic Global Information System (GIS) files and digital orthophotography for the study area.

**Public and Agency Input** – Throughout the study, there will be meetings with both the public and other stakeholders and resource agencies. These meetings will be used to gather necessary information and input and to keep interested parties up to date on the study's findings and progress. To assist in keeping the public and agencies informed, information will be added to the KYTC's Division of Planning website: <http://www.kytc.state.ky.us/planning/index.shtml>. This website will be updated on a regular basis as new information becomes available.

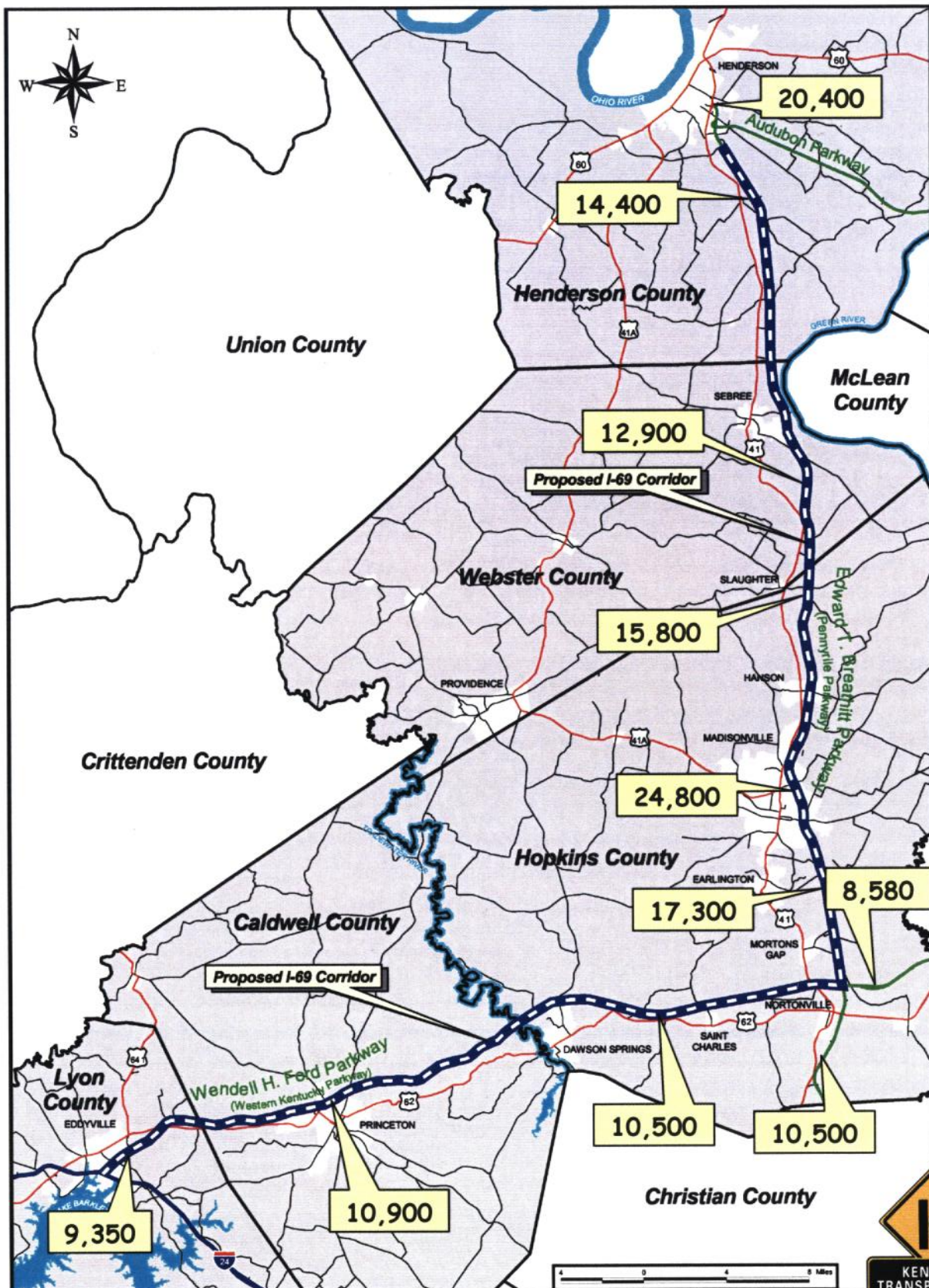
**Environmental Overview** – Using an array of data sources including field surveys and agency input, a preliminary environmental overview of the project corridor shall be completed. This overview will identify major social and natural factors that could affect the location of the potential routes.

**Development and Analysis of Alternatives** – Using the gathered input from all sources, a series of I-69 alternative improvements for upgrading the parkways will be identified. These will be evaluated on their merits in each of the study components (transportation network, public and agency input, environmental issues, etc.), as well as on total cost and constructability.





# How many cars and trucks are on the Parkway today?

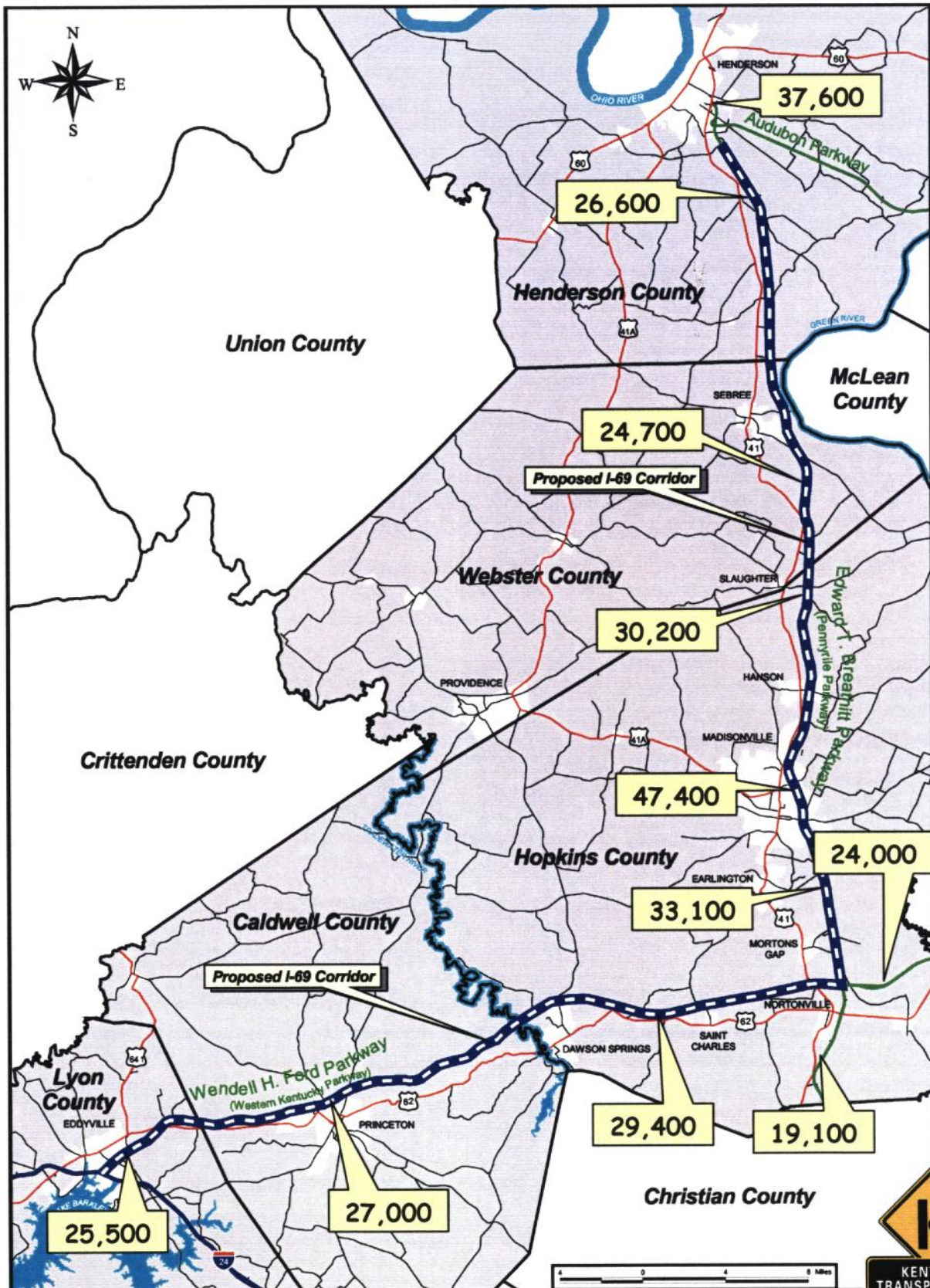


Yellow boxes show daily cars and trucks for year 2001.





# How many cars and trucks will be on the Parkway in 30 years?



Yellow boxes show daily cars and trucks for year 2030.

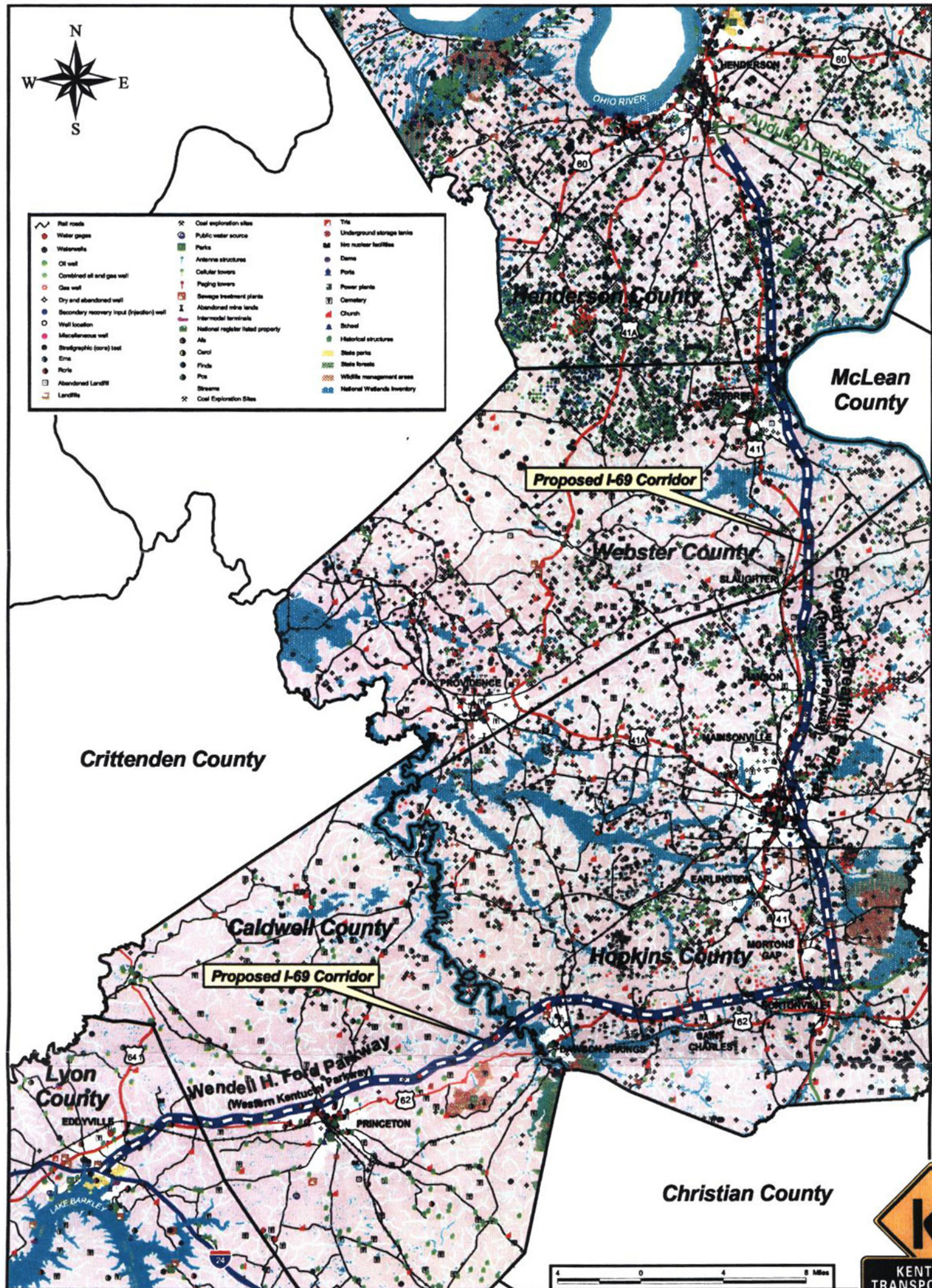








# Environmental Issues Need Special Consideration



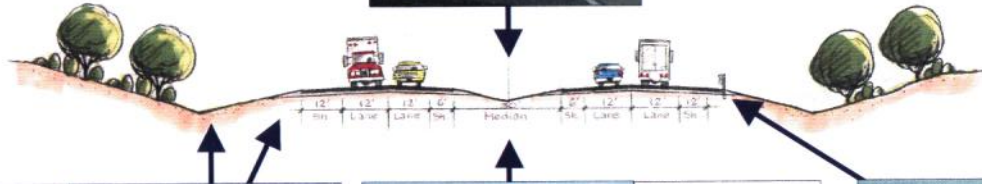




# Parkway Conditions and Options for I-69

## Parkway Existing Conditions

Currently, the parkways are divided, four-lane highways with fully-controlled access. However, in some areas the parkways do not meet interstate highway standards.



Guardrail is placed at some locations along the parkways to protect vehicles from roadside obstructions.

In some locations, shoulders along the parkways are not fully paved and slopes off the edge of the roadway can be steep with roadside obstructions existing close-by.



Existing medians along the parkway are generally depressed and approximately 30 feet in width.



## I-69 Corridor Desired Conditions



Current interstate design standards call for a median width of 64 feet.



Clear zones shall be at least 30 feet according to interstate design standards.

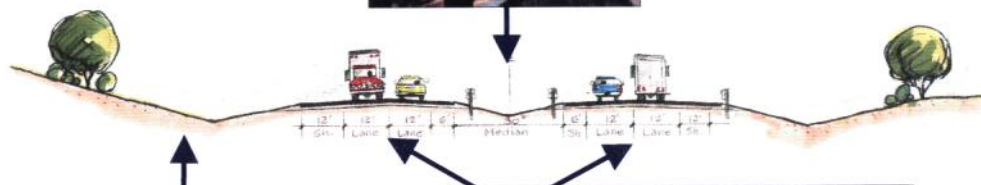


Existing conditions along the parkways provide for 12-foot lanes, 12-foot outside shoulder, and 6-foot inside shoulders.

## I-69 Corridor Acceptable Conditions



With a narrow median, guardrail or some other barrier should be used to help protect traffic.



Clear zones of 28 feet are acceptable but not preferred.



Acceptable conditions according to interstate design standards provide for 12-foot lanes, 12-foot outside shoulder, and 6-foot inside shoulders.







# PUBLIC NOTICE



The Kentucky Transportation Cabinet (KYTC), in cooperation with the Federal Highway Administration (FHWA), is issuing this notice to advise the public that the KYTC is initiating a study for the following proposed highway project:

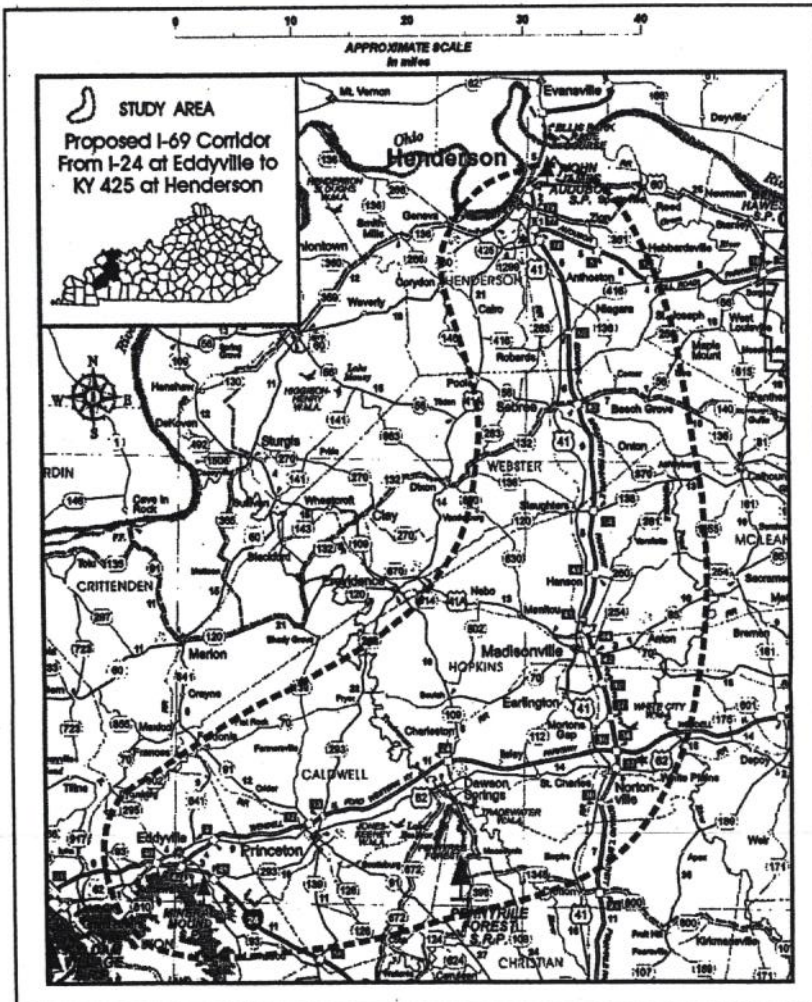
*Interstate 69 (I-69)  
from I-24 at Eddyville to KY 425 at Henderson  
(Section of Independent Utility No. 5)  
In  
Lyon, Caldwell, Hopkins, Webster, and Henderson Counties, Kentucky  
KYTC Item #2-69.10*

The I-69 project is part of a proposed "High Priority Corridor" of national significance (Corridor 18) that extends from the Canadian border at Port Huron, Michigan, to the Mexican border in the Lower Rio Grande Valley of Texas, in accordance with the legislative intent of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and subsequent federal transportation legislation. Segments of the corridor across Kentucky are in various stages of project development. This study will address alternatives and issues related to the development of an interstate highway between Eddyville and Henderson that will improve travel within the study area and become a segment of the national I-69 corridor.

During this study, comments will be gathered from appropriate federal, state, and local agencies, as well as other interested persons and the general public, in accordance with requirements set forth in the National Environmental Policy Act (NEPA) of 1969 and subsequent federal regulations and guidelines developed by the Executive Office of the President's Council on Environmental Quality and the United States Department of Transportation for the implementation of the NEPA process.

This study will include a scoping process for the early identification of potential alternatives for and environmental issues related to the proposed project. At this time, the level of environmental documentation that will ultimately be prepared is not known. However, if an Environmental Impact Statement (EIS) is prepared for the proposed project in the future, the information gained through the scoping process in this planning study may be used as input to the scoping process for the development of that EIS. If an EIS is prepared in the future, written comments on the scope of alternatives and impacts will still be considered at that time, after the filing of the Notice of Intent (NOI).

Comments, questions, or expressions of interest for the proposed project should be directed in writing to Annette Coffey, P.E., Director, Division of Planning (A-2), Kentucky Transportation Cabinet, 125 Holmes Street, Frankfort, KY 40622 or Evan Wisniewski, Federal Highway Administration, 330 West Broadway, Frankfort, KY 40601.



# City of Mortons Gap

Mortons Gap, Kentucky  
42440

December 13, 2002

Annette Coffey, P.E.  
Director  
Division of Planning, Ky Trans. Cabinet  
125 Holmes Street  
Frankfort, Kentucky 40622

Dear Annette Coffey,

The City of Mortons Gap supports the project of 1-69 coming through the Hopkins County area.

Sincerely,

  
Frank Stafford, Mayor

DIV OF PLANNING  
2002 DEC 18 A 9:02



# Coalfield Comments

WTTL AM 1310

WYMV Y-107 FM

1095 Nebo Road Madisonville Kentucky 42431

2003 JAN 24 A 11:13  
DIV OF PLANNING

January 20, 2003

Ms. Annette Coffey, P.E.  
Director  
Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, KY 40622

Dear Ms. Coffee:

I have thoroughly reviewed the documents provided. I found the information to be comprehensive and your plans well thought out. By following the existing parkway system a tremendous savings in land acquisition and lower environmental impact will be realized. Furthermore, had the proposed interstate followed another route; substantial traffic would have been diverted from the existing parkways thereby lowering their efficiency.

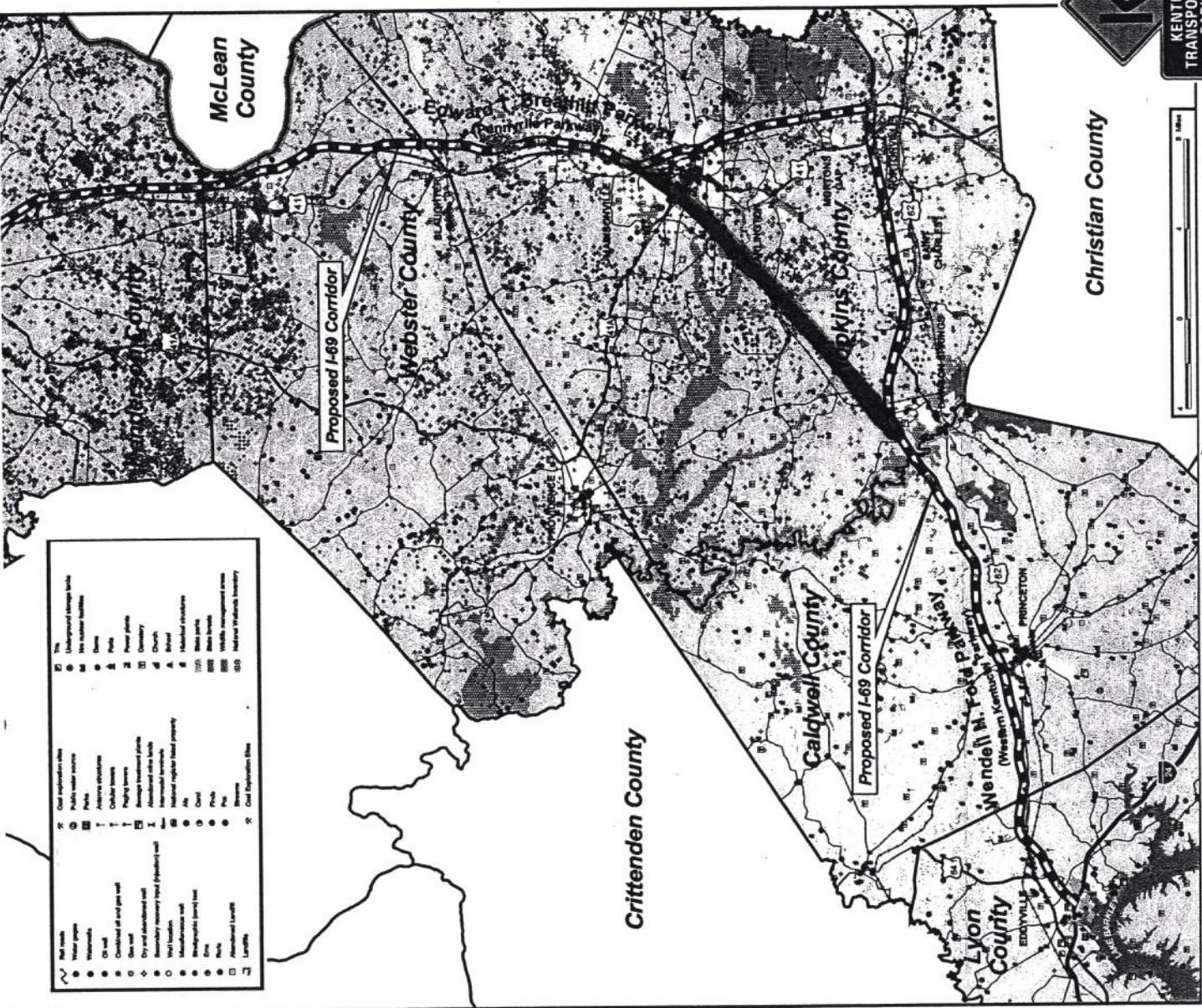
I am sure you have considered the alternatives. However, I will toss the suggestion anyway. See the attached copy of your map. The red marker line approximates a "short cut" of approximately nine miles. Such a routing would also provide most of a much-needed western by-pass for Madisonville. The land along this route would be fairly inexpensive. Regardless of the final selection across Western Kentucky, old surface and underground mining activity will cause problems.

Thank you for affording me the opportunity to offer my observations.

Sincerely,



Ronald L. Sanders  
Producer/Host



- |  |                               |     |
|--|-------------------------------|-----|
| Well water                               | Coal exploration sites        | Yes |
| Water power                              | Public water intake           | 6   |
| Waterfalls                               | Ponds                         | 10  |
| Oil well                                 | Artesian structures           | 11  |
| Combined oil and gas well                | Oilfield leases               | 12  |
| Gas well                                 | Piling towers                 | 13  |
| Dry and abandoned well                   | Range treatment ponds         | 14  |
| Boundary recovery land (Expendable well) | Abandoned pits/leaks          | 15  |
| Well location                            | Abandoned wells               | 16  |
| Manufacturing well                       | Historic rights/land property | 17  |
| Background (land) test                   | Oil                           | 18  |
| Site                                     | Coal                          | 19  |
| Perk                                     | Phosphate                     | 20  |
| Abandoned Landfill                       | Recreation                    | 21  |
| Landfill                                 | Coal Exploration Sites        | 22  |
- |    |                               |
|----|-------------------------------|
| 6  | Undeveloped storage tanks     |
| 10 | Iron/steel facilities         |
| 11 | Stems                         |
| 12 | Ponds                         |
| 13 | Power plants                  |
| 14 | Quarries                      |
| 15 | Churches                      |
| 16 | Abandoned                     |
| 17 | Historic rights/land property |
| 18 | Oil                           |
| 19 | Coal                          |
| 20 | Phosphate                     |
| 21 | Recreation                    |
| 22 | Coal Exploration Sites        |



KENTUCKY  
TRANSPORTATION  
CABINET



Christian County

Crittenden County

Caldwell County

McLean  
County

Webster County

Proposed I-69 Corridor

Proposed I-69 Corridor

Lyon County

Wendell M. Ford Parkway

Western Kentucky University

Princeton

Paducah

Wendell M. Ford Parkway

Wendell M. Ford Parkway

Wendell M. Ford Parkway

Wendell M. Ford Parkway





January 29, 2003

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
501 High St.  
Frankfort, KY 40622

VIA FACSIMILE: 502-564-9540

Dear Ms. Coffey:

First and foremost, on behalf of the Madisonville/Hopkins County Economic Development Corporation, I would like to take this opportunity to again express our appreciation to you and members of your staff who have worked so diligently in past months on the Interstate 69 and 66 projects.

The designation of the Pennyryle and Western Kentucky Parkways as Interstate routes is of great benefit to our community and region, leading to increased economic and commercial development opportunities locally, more jobs and higher traffic and visitor levels to our area as a result of the safer, more modern transportation infrastructure that will result from these projects.

Given your request for input on these projects as outlined in your letter dated December 6, 2002, the Infrastructure Committee for our corporation has met and we are pleased to offer the following comments:

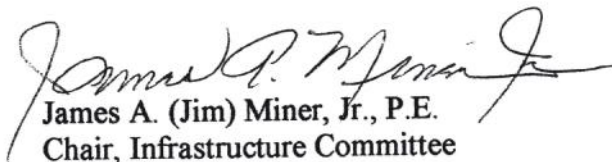
1. The most critical need is for signage along the current Parkway routes showing their designation as future interstates, in keeping with the designations that are currently displayed on the Kentucky Highway Maps. This will be very helpful to those traveling along the parkways, who are often finding the discrepancy between the highway map and the lack of signage confusing.
2. High priority should be given to engineering and design work for those areas with high accident and fatality rates along the current parkway routes.

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
Page #2  
January 29, 2003

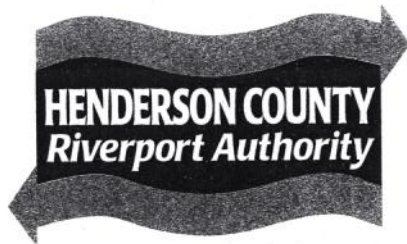
3. Another item of concern, which I'm sure will be addressed in the Interstate 69 and 66 design process, is bridge clearances, entrance and exit ramp distances and median widths to ensure adherence to acceptable interstate standards.

Thank you for your consideration of these issues. Please do not hesitate to contact me if you have questions or if I can be of further assistance to you as you continue to move forward with these projects.

Sincerely,



James A. (Jim) Miner, Jr., P.E.  
Chair, Infrastructure Committee  
Madisonville/Hopkins County  
Economic Development Corporation



6200 Riverport Road • Henderson, Kentucky 42420 • Ohio River Mile 808  
Phone (270) 826-1636 • Fax (270) 827-4523  
Email: email@hendersonport.com • Web Site: www.hendersonport.com

December 11, 2002

Jim Wilson  
Division of Planning  
Kentucky Transportation Cabinet

Dear Mr. Wilson:

I recently received your agency's packet on the I-69 project from Eddyville to Henderson. I would like to submit the Riverport's opinion about this project for the public record.

We view this project as a great economic opportunity, not only for the Henderson County Riverport, but also for the entire county and the people who live here. This link in the I-69 project connects with the 425 by-pass around Henderson and the Riverport is at the other end of that by-pass. This could prove to be a very good advantage for our Industrial Park and also provide a safer truck route to it.

The Henderson County Riverport is in full support of this project and is willing to cooperate with you to help this project succeed.

Sincerely,

A handwritten signature in black ink, appearing to read "David D. Hatchett". The signature is fluid and cursive, with a large, sweeping "H" and a long, trailing flourish at the end.

David Hatchett  
Executive Director

DH/ln

2002 DEC 12 P 2:29  
DIV OF PLANNING



# Henderson

**Economic  
Development Council**

1990 Barrett Ct. • P.O. Box 674 • Henderson, KY 42419-0674  
Phone: 270.826.7505 • Fax: 270.827.2969  
Toll Free: 1-877-434-3766  
email: results@hendersonedc.com • www.hendersonedc.com

December 17, 2002

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, Kentucky 40622

Dear Ms. Coffey:

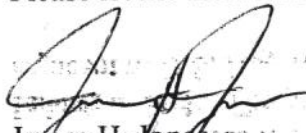
Thank you for your recent correspondence concerning the Planning Study for I-69. The Henderson Economic Development Council (EDC) is enthusiastic about this project and wants to assist in any way we can in expediting the construction of Section 5 from Henderson to Eddyville.

For the EDC, one of the most important issues regarding the project is the need for easy north/south access to I-69 for the industries locating in our state funded, 600-acre, 4 Star Industrial Park. The park is located in both Henderson and Webster Counties. It is adjacent to U.S. Highway 41 and is less than one mile west of the existing Natcher Parkway.

The 4 Star Park's development plans provide for an entrance into the park where Hwy 2097 intersects U.S. Hwy 41. A full I-69 interchange at Kentucky Highway 2097 will allow easy access into the park shortly after exiting the interstate.

Our community is currently a finalist in the site selection decision of a large distribution company that will employ 450 people. As a distribution company, they will obviously have a large volume of truck traffic. They have expressed concerns about the existing roads connecting the Natcher Parkway and U.S. Hwy 41. Our proposed interchange would greatly benefit this company as well as other companies considering locating in the 4 Star Park.

Please let me know if I can be of further assistance in this matter.



James H. Jones  
Executive Director



JOHN JAMES AUDUBON  
came to Henderson in 1810.  
The John James Audubon  
Museum showcases one of the  
most extensive collections of  
Audubon's work in the world.

Post Office Box 376

Henderson, KY  
42419-0376

Tel: (270) 826-9531

Fax: (270) 827-4461

Email:  
[info@hendersonchamber.org](mailto:info@hendersonchamber.org)

Visit our web site at:  
[www.hendersonky.com](http://www.hendersonky.com)



January 15, 2003

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, KY 40622

Dear Ms. Coffey:

The Transportation Committee of the Henderson-Henderson County Chamber of Commerce has recommended the Edward T. Breathitt and the Wendell H. Ford Parkways as the route for that portion of I-69.

Certainly there are obvious reasons. First, the fact that the largest population base will be served using this route. Second, the cost savings of using the existing roadway with some improvements.

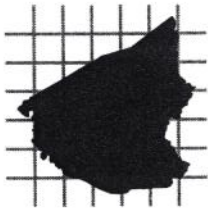
We anticipate that a decision to use an Eastern route for the Ohio River crossing will be forthcoming. This will allow for an easy access from that segment to the Breathitt Parkway.

Should you have additional questions, please do not hesitate to contact me at your earliest convenience. I can be reached via email  
[geohwarren@hendersonchamber.org](mailto:geohwarren@hendersonchamber.org).

Sincerely,

George H. Warren, President  
Henderson-Henderson County  
Chamber of Commerce

DIV OF PLANNING  
2003 JAN 21 A 10:37



## HOPKINS COUNTY JOINT PLANNING COMMISSION

Hopkins County Government Center • 56 North Main Street  
Madisonville, KY 42431 • 270-825-4457 • FAX • 270-825-5019

January 28, 2003

Annette Coffey, P.E., Director  
Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, KY 40622

Dear Ms. Coffey,

Thank you for the involvement of localities in identifying issues or concerns that could affect the development of the I-69 project. In reviewing materials available and consulting with the Planning Commission, I submit the following for your information purposes. These issues have been identified as transportation needs by various groups around Hopkins County.

1. Our current Comprehensive Plan identifies the need to re-design the interchange at the Wendell H. Ford (Western Kentucky) Parkway and Highway 109;
2. A new interchange with the Wendell H. Ford (Western Kentucky) Parkway at Highway 41 – by Southside Elementary School;
3. The widening and reconfiguring of Highway 336 from the southbound off-ramp of the Edward T. Breathitt (Pennyrile) Parkway to Highway 481 – this is the “backdoor” into Madisonville.

As I mentioned, these are identified as transportation needs, therefore, I offer them as additional information. Other than the usual under-mined areas near the Parkways, the concentrated animal feeding operations, the wildlife refuges, etc., we have no additional issues or concerns to offer at this time.

Once again, thank you for seeking local input. If we may be of assistance in any manner, please do not hesitate to ask.

Sincerely,

Paula J. Dennison, AICP  
Director



# Madisonville Community College



2000 College Drive  
Madisonville, KY 42431  
(270) 821-2250

December 16, 2002

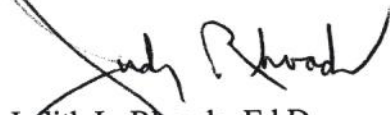
Annette Coffey, P.E.  
Director - Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes St.  
Frankfort, KY 40622

Dear Ms. Coffey:

On behalf of faculty, staff and the administration of Madisonville Community College, I want to express to you our support of the reconstruction of the Wendell H. Ford Parkway and the Edward T. Breathitt Parkway between Eddyville and Henderson to become part of the national Interstate 69 (I-69) corridor. The concern of the college would be the fact that many, many students use the Breathitt Parkway and some students use the Ford Parkway. It is important that the students have routes to travel that would not delay them in getting to the college. I am sure you would publish alternate routes for folks traveling on those roads when there would be the potential for delays. The number of vehicles traveling the Breathitt Parkway near Madisonville as listed on your handout is 24, 800. Many of that number are students enrolled at Madisonville Community College. Also noted on a handout is the high accident segment near Madisonville.

I think the potential for future economic development for our area of Kentucky will greatly increase as a result of the I-69 corridor. Being that near an interstate highway that connects Canada and Mexico would certainly benefit Hopkins County and all of Kentucky. I am in full support of the project. If you questions or need to reach me, please feel free to do so. Thank you for the opportunity to express our concerns.

Sincerely,



Judith L. Rhoads, Ed.D.  
President

JLR/ja





UNIVERSITY OF KENTUCKY

DIV OF PLANNING

2003 JUN 13 A 10: 06

**Kentucky Geological Survey**

Research and Graduate Studies  
228 Mining and Mineral Resources Building  
Lexington, KY 40506-0107  
Phone: (859) 257-5500  
Fax: (859) 257-1147  
[www.uky.edu/kgs](http://www.uky.edu/kgs)

June 11, 2003

Annette Coffey, P.E.  
Director  
Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, Kentucky 40622

Dear Ms. Coffey:

This letter is to summarize geologic concerns for the Planning Study:  
Lyon, Caldwell, Hopkins, Webster, and Henderson Counties  
I-69, Eddyville to Henderson, Ky.  
Item No. 2-69.10

This project occurs in two physiographic regions and will be discussed in two parts:

**PART 1**

(I-69 from Eddyville, Lyon County, through Caldwell County up to the East Fork in the Olney quadrangle).

**Physiographic Region**

This portion of the project is in the Mississippian Plateau (Pennyroyal or Pennyrile) Physiographic Region, which is underlain by limestone, sandstone, siltstone, gravel, sand, and silt.

**Karst Potential**

This portion of the project area would encounter karst features, such as sinkholes and caves.

**Landslide Potential**

This portion of the project area would encounter minimal pre- or post-landslide hazards.

**Unconsolidated Sediments**

This portion of the project area would encounter unconsolidated sediments at or near stream drainage, such as gravel, sand, and silt.





### **Resource Conflicts**

This portion of the project area might encounter some resource conflicts, such as prior ownership of property for limestone quarrying or mining. There are gas wells in this portion of the project.

### **Materials Suitability**

The gravel of the Tuscaloosa Formation found in the Princeton West quadrangle might be suitable for secondary road beds. It would not be suitable for aggregate for concrete because of its chert content. Many of the limestone units have been quarried for aggregate and may be suitable for road metal; however, the St. Louis would not be suitable for road metal as it may contain expansive material.

### **Fault Potential**

This portion of the project area would encounter numerous faulted areas; with the mineralization (fluorite and calcite) may be associated with these areas.

### **Earthquake Ground Motions**

This portion of the project area has probable peak ground acceleration (PGA) due to earthquake ground motion of 0.19g. There would be a low potential for liquefaction or slope failure in the unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

## **PART 2**

(I-69 from East Fork in the Olney quadrangle in Caldwell County through Hopkins County and Webster County, ending at Henderson in Henderson County).

### **Physiographic Region**

This portion of the project area is in the Western Kentucky Coal Field. It is underlain by sandstone, siltstone, shale, limestone, coal, clay, underclay, gravel, sand, and silt.

### **Karst Potential**

This portion of the project area would encounter minimal karst features, such as sinkholes and caves.

### **Landslide Potential**

This portion of the project area would encounter moderate pre- or post-landslide hazards because of the number of different rock units with different weathering potential.

### **Subsidence Potential**

This portion of the project area might encounter areas of abandoned underground coal mines that might be subject to subsidence.

### **Unconsolidated Sediments**

This portion of the project area would encounter unconsolidated sediments at or near stream drainage, such as gravel, sand, and silt.

**Resource Conflicts**

This portion of the project area might encounter a few resource conflicts such as prior ownership of property for coal mining.

**Materials Suitability**

This portion of the project area would not encounter any material for use as road aggregate.

**Fault Potential**

This portion of the project area would encounter numerous faulted areas.

**Earthquake Ground Motions**

This portion of the project area has probable peak ground acceleration (PGA) due to earthquake ground motion of 0.15g. There would be a low potential for liquefaction or slope failure in the unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

Sincerely,

Richard A. Smath  
Geologist

cc: Richard Wilson



**Wilson, Jimmy (KYTC)**

---

**From:** Greer, Daryl (KYTC)  
**Sent:** Tuesday, January 07, 2003 2:21 PM  
**To:** Wilson, Jimmy  
**Subject:** FW: I-69, Item # 2-69.10, Agency Comments

-----Original Message-----

**From:** Combs, Kelvin (KYTC)  
**Sent:** Tuesday, January 07, 2003 2:01 PM  
**To:** Greer, Daryl (KYTC)  
**Subject:**

Daryl,

The Division of Aeronautics has reviewed the planning study for: I-69 Eddyville to Henderson (Item # 2-69.10) and we have no negative comments pertaining to this study.

Kelvin Combs  
Kentucky Airport Zoning Administrator  
Division of Aeronautics  
(502) 564-4480

C-17 *Geotech*  
*Wilson*

A-2

**MEMORANDUM**

DIV OF PLANNING

(P-1-2003)

**TO:** **Annette Coffey, PE** 2003 JAN 23 P 1:53  
Director, Division of Planning

**FROM:** William Broyles, PE  
Branch Manager  
Geotechnical Engineering  
Division of Materials

**BY:** R. T. Wilson, P.G. *R. T. Wilson*  
Geotechnical Branch

**DATE:** January 22, 2003

**SUBJECT:** Lyon, Caldwell, Hopkins, Webster and Henderson Counties  
FD52 C121, Mars No. 6974401D  
Eddyville to Henderson (I-69)  
Preliminary Geotechnical Review  
Item 2-69.10

At your request, a review of the geologic formations and geotechnical problems to be encountered by the subject project is completed. This project begins on the Mississippian plateau ends in the Western Kentucky Coal Fields region.

It is situated in three drainage basins. Drainage west of Princeton flows into the Cumberland River system; between Princeton and approximately a mile east of St. Charles on the WK, drainage flows into the Tradewater River and all drainage east St. Charles flows into the Green River system.

Rock formations along the proposed route are part of the Quaternary, Pennsylvanian, Mississippian, Systems.

Quaternary alluvium is detrital material consisting of clays, silts, sands, gravels and boulders. A thickness of approximately 20 feet is estimated.



Pennsylvanian age rocks consists of the Sturgis, Carbondale Tradewater and Caseyville Formations. These formations contain sandstones, shales, limestones and coals. Sandstones are generally characterized as brown in color, medium to coarse-grained size, friable and not suitable where durable rock is required in construction applications. Shales consist of small amounts of Durable Shale or siltstone. Most shales will be classified as non-durable shale or clay shales and will require special shale compaction techniques. This project encounters numerous Coal seams; they are from the Kentucky Number 1 in the Caseyville through the Kentucky Number 18 in the Sturgis. Pennsylvanian limestones are generally less than 10 feet, discontinuous and will not generate significant quantities of limestone for highway uses.

Beneath the Pennsylvanian is the Mississippian Age rocks consisting of Kinkaid Limestone, Palestine Sandstone, Menard Limestone, Waltersburg Sandstone, Vienna Limestone, Tar Springs Sandstone, Glen Dean Limestone, Hardinsburg Sandstone, Golconda Formation, Cypress Sandstone, Paint Creek Limestone, Bethel Sandstone, Renault Formation, Ste. Genevieve, St. Louis, Salem, Warsaw and Fort Payne Formations.

The Kinkaid Limestone consists of interbedded red gray or green non-durable shales make up 50 percent of the unit with intermittent sandstone and limestone ledges composing the remainder; the Kinkaid Limestone is approximately 55 -150 feet thick. Palestine Sandstone is dominantly a gray siltstone (durable shale) 35-70 feet thick. Menard Limestone is an argillaceous limestone with red to gray non-durable shale beds and a unit thickness of 115- 135 feet thick. This limestone is suitable all highway uses. Waltersburg Sandstone is 80 percent a non-durable shale 60-70 feet thick.. Vienna Limestone medium crystalline limestone 15-25 feet thick suitable for all highway uses. Tar Springs Sandstone is 80 to 175 feet thick, the upper third is non-durable gray shale, and the middle third interbedded sandstone and shale and bottom third sandstone. Glen Dean Limestone is a medium to coarse crystalline limestone 0-100 thick and is suitable for all highway uses. Hardinsburg Sandstone is interbedded sandstone and shale non-durable shale with a unit thickness of 80-100 feet thick. Golconda Formation is dominantly gray non-durable shale with small amounts of limestone and sandstone. It has a unit thickness of 110- 130 feet thick. Cypress Sandstone is a gray to red non-durable shale 40 -60 feet thick.. Paint Creek Limestone is 90-145 feet thick and suitable for all highway uses, with minor shale and sandstone partings. The Bethel Sandstone is 10-210 feet thick, durable and

gray in color. Renault Formation is 0-100 feet thick limestone suitable for all highway uses. Ste. Genevieve is 180-200 feet thick, fine to medium grained limestone. Sinkholes, lapies, and caverns are associated with this formation. Rock from this formation is suitable for all roadway uses. St. Louis, Salem, Warsaw is 530 – 635 feet thick with chert beds and numerous calcareous shale parts prevalent. Fine to coarse crystalline limestone occurs throughout, solution features are not common with these formations. Rock from this formation is suitable for all roadway uses. Fort Payne Formations is a 600 feet thick limestone unit containing a large percent of chert. However, it is still suitable for most highway uses.

Vertical displacement faults trending northeast to southwest generally parallel the Western Kentucky Parkway and cross the Pennyryle. Construction problems associated with these faults are not anticipated to be insurmountable problems but will be addressed on a case by case basis.

Springlines can be anticipated at the base of the many limestone units, faults and on out crops of the coal seams.

### Coal Mining Considerations

Numerous commercial coal seams are present within the corridor. A review of available mine maps indicates the proposed corridor has both strip-mines and abandon underground mines along both Parkways, with the highest concentrations in the Henderson, Madisonville and St. Charles areas. Mining by underground methods has occurred in the Kentucky No. 4, 9 & 11. Strip mines are present in the 4, 7, 9, 11, 12 & 14. The present road alignment can not avoid the underground mines and numerous subsidence problems have occurred though out the study area. The Madisonville area is of special concern due to abandon multiple seam-mines with a history of sudden highway subsidence on the Parkway. Therefore, stabilization of the mine voids is recommended. Methods to be used include over excavating to remove the mine void, pneumatic backstowing, reinforced embankment slopes, flatter cut slopes and embankment slopes. Structures utilizing yielding foundations or footers located below the void will be required to minimize subsidence problems.

A mineral evaluation study will be required after a preferred alignment is selected. If alignments are away from the existing Parkways



the mineral evaluation will be needed to assist in determining the cost of new alignments verses existing alignments.

If active underground coal mines are present at the time of construction, special safety regulations will be necessary for construction activities when crossing mains or active sections of coal mines. These can include temporary suspension of mine production and evacuation of personnel from the mine. The mining companies may request compensation for reduced production during roadway construction blasting activities.

The proposed road alignments are crossing both reclaimed and unreclaimed strip mines. Unreclaimed strip mines generally predate 1977 and foundation materials have consolidated making settlement problems less severe. Strip mines completed after 1977 are generally reclaimed and contain unconsolidated materials, making settlement in the foundation of fills very likely. In order to minimize fill settlement removal of the top 5 feet of strip mine waste and recompaction in 1.0-foot lifts is recommended. Dynamic compaction may be considered as another alternate. Cut slopes in strip mine wastes will generally be 3:1 extending to the disturbed limit.

Numerous oil and gas extraction wells are located on this project. Maps also indicate water and gas injection wells are present as part of water floods and natural gas storage. It appears that the widening has the potential for negatively impacting some wells. Costs associated with impacting the wells will be required to better determine if buying the wells or avoiding them is the best solution.

#### Environmental Considerations . . .

1. Encasing embankments with 2' minimum of soil and lining drainage ditches with limestone should minimize acid produced from the black carbonaceous shale.
2. The roadway widening is anticipated to encroach on wetlands. Alternate construction techniques may be necessary to minimize the impact in the environmentally sensitive area.
3. I-69 crosses 24 blueline streams where additional disturbance may be required and attempts will be made to minimize the

impacts by appropriate methods such as limited channel changing, erosion control and fish habitat improvement structures.

4. Friable sandstones are associated Pennsylvanian age formations. Where exposed, erosion control methods such as silt fences, straw bales and settling ponds will be needed to prevent stream siltation.
5. Most coal seams projected to be present on the route contain levels of acid producing materials, which require treatment. Acidic shales and coal waste sites should be buried or encased with 4' of soil and/or non-durable shale.
6. Karst drainage systems are present in the Princeton area. Treatment of sinkholes that are not to be used for drainage treatment should follow "Treatment of Sinkholes". Sinkholes, which are to be utilized for drainage, should be investigated to determine if it may adversely impact others.

#### Geotechnical Considerations . . .

1. Soil overburden depths may vary from 10' to 30'.
2. The average soil stripping depth is estimated to be 3" and a soil shrinkage factor of 2 percent is suggested in accordance with the Design Guidance Manual Section.
3. Rock Swell Factors for this project are estimated to be as follows: 0% to 10% for Non-Durable Shales; and 15% for Sandstone, Limestone and Durable Shales.
4. A CBR value of 3 is recommended if soil subgrade or nondurable shales are utilized. Therefore, chemical stabilization of the subgrade is likely. If limestone and sandstone or durable shales are available in sufficient quantities for subgrade a CBR of 11 - 9 respectfully is anticipated.



5. Cut slopes in the durable shales, limestone, dolomites, and sandstones will be stable on 1:20 – ½:1 presplit slopes with 18' – 20' benches and 10'-15' overburden bench at the bottom of the overburden and rock disintegration depth. Back slopes will be depended on the joint angles and the lift heights depend on lithology. The RDZ extends approximately 10' – 30' below groundline in cut section.
6. Cut slopes in nondurable shales should be 1.5:1 or flatter. Side hill conditions should be avoided in these formations where possible.
7. Special shale compaction procedures may be required where nondurable shales are utilized.
8. Limestone, siltstones, or durable sandstones should be placed in bottom of fills to the maximum high water elevation at all streams.
9. Rock flowlines are not anticipated at any of the stream crossings. Therefore, yield foundations will be required.
10. Embankment benches will be necessary in sidehill conditions. Limestone rock or free draining materials (2 feet minimum) should be placed on the benches for drainage.
11. For estimating right of way requirements and quantities an overall 3:1 slope is recommended for embankment slopes and 2:1 for cut slopes.
12. Spring boxes and underdrains will be necessary when springs, caves and water bearing coal seams are encountered in the embankment areas and undercuts.
13. Limestone, Durable Sandstone & Durable Shale are suitable for all roadway uses.
14. Friable Sandstone is suitable for free draining fill & embankments, however it shall be constructed in 1' lifts.

15. Non-Durable Shales are suitable for embankment constructed in 8" lifts and compacted in accordance with shale compaction procedures.
16. This project is in a classified Seismic Risk Zone 3, which is defined as an area of major damage due to earthquake activity.

If there are questions or comments, please advise.



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

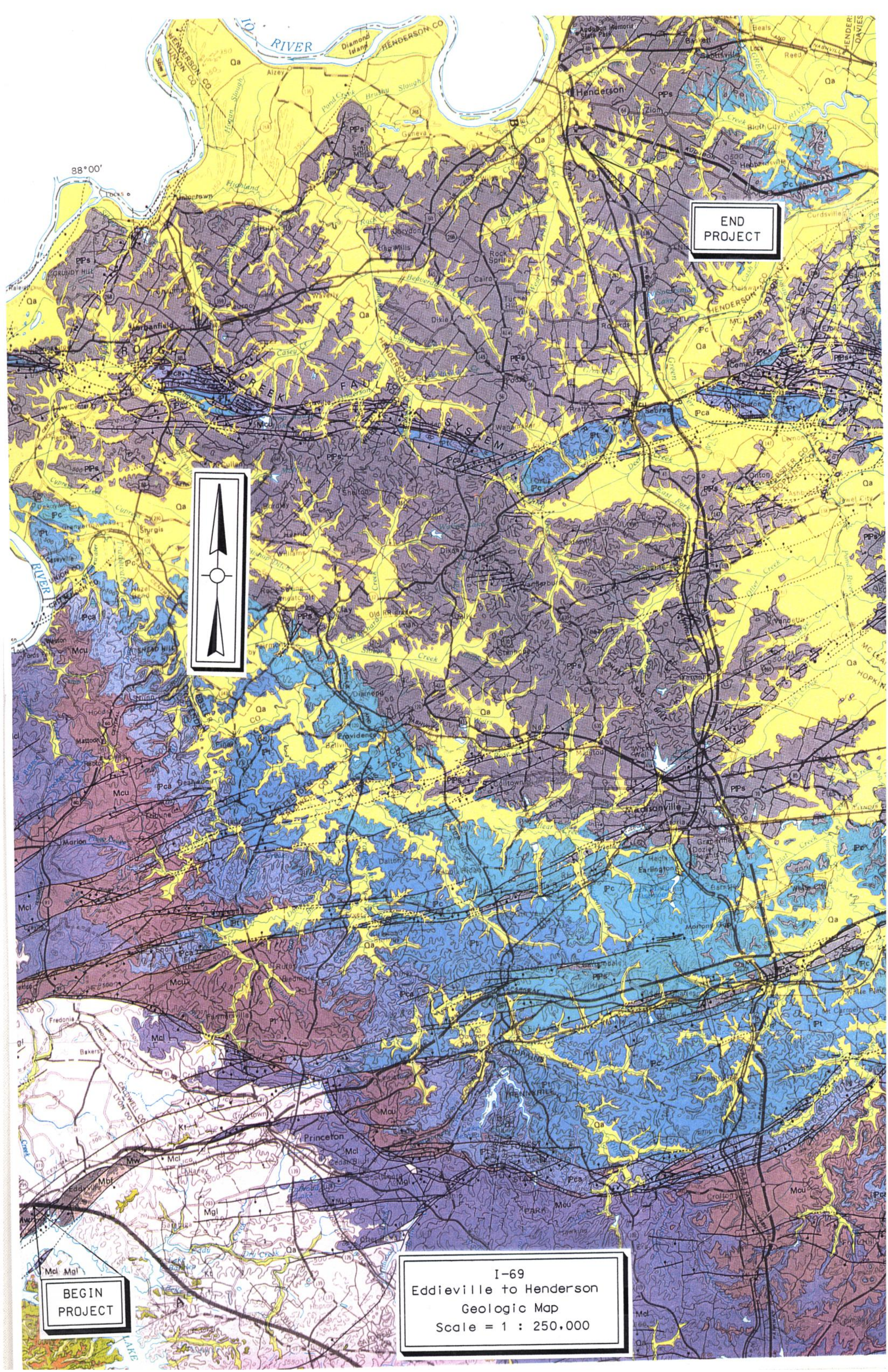
## WESTERN KENTUCKY

WESTERN KENTUCKY						
SYSTEM	SERIES	FORMATION, MEMBER, AND BED	LITHOLOGY	THICKNESS, IN FEET	THICKNESS, IN METERS	
QUATERNARY	Holocene ?	Alluvium		0-200	0-60	
	Pleistocene	Lacustrine deposits		0-185	0-55	
		Loess		0-80	0-25	
		Continental deposits and fluvial deposits		0-120	0-35	
TERTIARY	Pliocene	<sup>1</sup> Jackson Formation		0-220	0-65	
		Claiborne Formation		75-320	22-100	
	Eocene	Wilcox Formation		0-200	0-60	
		Paleocene	Porters Creek Clay		65-230	20-70
	Clayton and McNairy Formations			125-275	40-85	
	CRETACEOUS	Upper Cretaceous	Tuscaloosa Formation		0-180	0-55
		PERMIAN	Lower Permian	<sup>2</sup> Mauzy Formation		390+
PENNSYLVANIAN	Upper Pennsylvanian		Sulphur Springs coal bed			
		Sturgis Formation		2260	678	
		Geiger Lake coal bed				
		Dixon Sandstone of Glenn (1912)				
		Lisman coal bed				
		No. 18 coal bed				
		Carthage Limestone Member				
		No. 17 coal bed				
		No. 16 coal bed				
		No. 15 coal bed				
	Lower Pennsylvanian	Madisonville Limestone Member				
		No. 14 coal bed				
		No. 13 coal zone				
		Providence Limestone Member				
Lower Pennsylvanian	No. 11 coal bed					
	No. 9 coal bed					
	Carbondale Formation		300-420	90-125		
	No. 8b coal bed					
		No. 8 coal bed				
		No. 7 coal bed				
		No. 6 coal bed				

## WEST-CENTRAL KENTUCKY

[illegible]





END  
PROJECT



BEGIN  
PROJECT

I-69  
Eddieville to Henderson  
Geologic Map  
Scale = 1 : 250,000





James C. Codell, III  
Secretary of Transportation

Commonwealth of Kentucky  
**Transportation Cabinet**  
Frankfort, Kentucky 40622

DIV OF PLANNING


2003 FEB 12 A 9:08

Paul E. Patton  
Governor

Clifford C. Linkes, P.E.  
Deputy Secretary

**MEMORANDUM**

**TO:** Annette Coffey, Director  
Division of Planning

**FROM:** Michael L. Hill, Director   
Division of Multimodal Programs

**DATE:** February 11, 2003

**SUBJECT:** Interstate 69 (I-69) Planning Study  
Item No. 2-69.10

Thank you for the opportunity to comment on this significant project.

The proposed I-69 corridor passes through one Metropolitan Planning Organization (MPO), EUTS for Henderson, KY, and one Small Urban Area (SUA), Madisonville, KY. The MPO will need to be informed about the progress of the project, and be provided opportunities for comments, when appropriate. In addition, a SUA study of Madisonville was completed at the end of 2002. This Division suggests incorporating the results of this study into the I-69 Planning Study. The impact of the I-69 corridor through Madisonville should be thoroughly evaluated. If any additional copies of the Madisonville SUA study are required, please contact Amy Thomas of this Division, at 502.564.7686.

The coordination and connectivity of bicycle and pedestrian facilities is important in the early planning and design stages of projects. Design Guidance from the United States Department of Transportation released in February, 2000, states "bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist."

The proposed I-69 corridor only intersects one designated bicycle route – the TransAmerica Trail east of Sebree, in Webster County. Any changes to the Sebree interchange should incorporate bicycle facilities in order to maintain connectivity and the stability of the TransAmerica Trail. In addition, although bicycles and pedestrians are not allowed on Interstates, any new



bridges along the corridor should be evaluated to provide pedestrian and bicycle facilities for non-motorized connectivity when necessary.

Please contact Paula Nye of this Division for any questions about bicycle and pedestrian concerns.

We look forward to working with your Division to facilitate your study efforts in our air quality nonattainment and maintenance areas, SUA and MPO areas, and by increasing awareness of bicycle and pedestrian issues.

MLH/LJS/CPS/PEN/AJT



A-2




Commonwealth of Kentucky  
**Transportation Cabinet**  
Frankfort, Kentucky 40622

James C. Codell, III  
Secretary of Transportation

Paul E. Patton  
Governor

Clifford C. Linkes, P.E.  
Deputy Secretary

**MEMO TO:** Annette Coffey  
Engineer Director  
Division of Planning

**FROM:** Charles A. Knowles   
Engineer Director  
Division of Operations

**DATE:** January 17, 2003

**SUBJECT:** Planning Study  
Lyon, Caldwell, Hopkins, Webster, and Henderson Counties  
I-69 Eddyville to Henderson  
Item No. 2-69.10

The Division of Operations prefers reconstruction of the Wendell H. Ford (Western Kentucky) Parkway and the Edward T. Breathitt (Pennyrile) Parkway in lieu of the construction of a parallel route.

CAK/WEN/mp

DIV OF PLANNING  
2003 JAN 17 P 2:11





Commonwealth of Kentucky  
**Transportation Cabinet**  
Frankfort, Kentucky 40622

James C. Codell, III  
Secretary of Transportation

Clifford C. Linkes, P.E.  
Deputy Secretary

DIV OF PLANNING

2003 JAN 27 P 1:42

Paul E. Patton  
Governor

**MEMORANDUM**

**TO:** Annette Coffey, P.E.  
Director  
Division of Planning

**FROM:** Edward Sue Perkins, P.E.  
Branch Manager  
Permits Branch *Sue*  
*by: ESE*

**DATE:** January 27, 2003

**RE:** Planning Study  
Lyon, Caldwell, Hopkins, Webster and Henderson Counties  
I-69 Eddyville to Henderson  
Item No. 2 - 69.10

The Permits Branch has reviewed the data provided for subject study site and wish to offer the following.

1. Since the proposed roadway is to be on the N. H. S., early notification of the final line and grade is needed. This enables us to monitor outdoor advertising devices prior to road construction being completed.
2. Full Access Control should be extended along cross roads from ends of ramps to insure that future entrances proposed on cross roads will be in accordance spacing requirements and 603 KAR 5:120.

Thank you for the opportunity to verbalize our concerns.

ESP/elc







U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Airports District Office, FAA  
3385 Airways Blvd., Suite 302  
Memphis, Tennessee 38116-3841  
(901) 544-3495 FAX: (901) 544-4243  
Email: 9.aso-mem-ado@faa.gov

December 10, 2002

Ms. Annette Coffey, P. E., Director  
Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, KY 40622

Dear Ms. Coffey:

This is in response to your letter to Ms. LaVerne Reid dated December 6, 2002 requesting information on any impacts concerning the proposed national Interstate 69 corridor.

There are some public airports in the vicinity of this proposed project as follows:

Henderson City – County Airport	Henderson, KY
Madisonville Municipal Airport	Madisonville, KY
Tradewater Airport	Dawson Springs, KY
Princeton – Caldwell Co. Airport	Princeton, KY

I have enclosed a map showing the airport locations. Please notify this office if the proposed I-69 will be within 3 miles of the listed airports via the enclosed FAA Form 7460-1, "Notice of Proposed Construction".

Thank you for the opportunity to review the proposal.

Sincerely,

Michael L. Thompson  
Program Manager

enclosures

2002 DEC 13 A 9:47  
DIVISION OF PLANNING









*Failure To Provide All Requested Information May Delay Processing of Your Notice*

# Notice of Proposed Construction or Alteration

FOR FAA USE ONLY

Aeronautical Study Number

1. **Sponsor** (person, company, etc. proposing this action) :

Attn. of: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

2. **Sponsor's Representative** (if other than #1) :

Attn. of: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (      months,      days)

5. **Work Schedule:** Beginning \_\_\_\_\_ End \_\_\_\_\_

6. Type: ☐ Antenna Tower    ☐ Crane    ☐ Building    ☐ Power Line

☐ Landfill    ☐ Water Tank    ☐ Other \_\_\_\_\_

**7. Marking/Painting and/or Lighting Preferred:**

☐ Red Lights and Paint      ☐ Dual - Red and Medium Intensity White

☐ White - Medium Intensity      ☐ Dual - Red and High Intensity White

☐ White - High Intensity      ☐ Other \_\_\_\_\_

**8. FCC Antenna Structure Registration Number (if applicable):**

**9. Latitude:**

10. Longitude:      °      '      .      "

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other \_\_\_\_\_

12. Nearest: City: \_\_\_\_\_ State: \_\_\_\_\_

13. Nearest Public-use (not private-use) or Military Airport or Heliport:

14. Distance from #13. to Structure: \_\_\_\_\_

15. Direction from #13. to Structure:

16. Site Elevation (AMSL): \_\_\_\_\_ ft.

17. Total Structure Height (AGL): \_\_\_\_\_ ft.

18. Overall height (#16. + #17.) (AMSL): \_\_\_\_\_ ft.

19. Previous FAA Aeronautical Study Number (if applicable):

- OE

**20. Description of Location:** (Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey.)

**21. Complete Description of Proposal:**

Frequency/Power (kW)

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking and lighting standards as necessary.

Date	Typed or Printed name and Title of Person Filing Notice	Signature
------	---	-----------

**INSTRUCTIONS**  
**FOR**  
**NOTICE OF PROPOSED**  
**CONSTRUCTION OR ALTERATION**  
**(FAA Form 7460-1)**

**PLEASE TYPE or PRINT**

**ITEM #1.** Please include the name, address, and phone number of a personal contact point as well as the company name.

**ITEM #2.** Please include the name, address, and phone number of a personal contact point as well as the company name.

**ITEM #3.** New Construction would be a structure that has not yet been built.

Alteration is a change to an existing structure such as the addition of a side mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alternation shall be included in ITEM #21 "Complete Description of Proposal".

Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has never been studied by the FAA. The reason for the notice shall be included in ITEM #21 "Complete Description of Proposal".

**ITEM #4.** If Permanent, so indicate. If Temporary, such as a crane or drilling derrick, enter the estimated length of time the temporary structure will be up.

**ITEM #5.** Enter the date that construction is expected to start and the date that construction should be completed.

**ITEM #6.** Please indicate the type of structure. DO NOT LEAVE BLANK.

**ITEM #7.** In the event that obstruction marking and lighting is required, please indicate type desired. If no preference, check "other" and indicate "no preference". DO NOT LEAVE BLANK. NOTE: High intensity lighting shall be used only for structures over 500' AGL. In the absence of high intensity lighting for structures over 500' AGL, marking is also required.

**ITEM #8.** If this is an existing tower that has been registered with the FCC, enter the FCC Antenna Structure Registration number here.

**ITEM #9. and #10.** Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second if known. Latitude and longitude derived solely from a hand-held GPS instrument is NOT acceptable. A hand-held GPS is only accurate to within 100 meters (328 feet) 95 per cent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.

**ITEM #11.** NAD 83 is preferred; however, latitude/longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datums may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.

**ITEM #12.** Enter the name of the nearest city/state to the site. If the structure is or will be in a city, enter the name of that city/state.

**ITEM #13.** Enter the full name of the nearest public-use (not private-use) airport (or heliport) or military airport (or heliport) to the site.

**ITEM #14.** Enter the distance from the airport or heliport listed in #13 to the structure.

**ITEM #15.** Enter the direction from the airport or heliport listed in #13 to the structure.



**ITEM #16.** Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g. 17' 3" rounds to 17', 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #20.

**ITEM #17.** Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include anything mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc.

**ITEM #18.** Enter the overall height above mean sea level and expressed in whole feet. This will be the total of ITEM #16 + ITEM #17.

**ITEM #19.** If an FAA aeronautical study was previously conducted, enter the previous study number.

**ITEM #20.** Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8-1/2" X 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, Contact USGC at 1-800-435-7627 or via Internet at "<http://mapping.usgs.gov>". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

**ITEM #21.**

- For transmitting stations, include maximum effective radiated power (ERP) and all frequencies.
- For antennas, include the type of antenna and center of radiation (Attach the antenna pattern, if available).
- For microwave, include azimuth relative to true north.
- For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).
- For each pole/support, include coordinates, site elevation, and structure height above ground level or water.
- For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials,
- For alterations, explain the alteration thoroughly,
- For existing structures, thoroughly explain the reason for notifying the FAA (e.g. corrections, no record of previous study, etc.).

Filing this information with the FAA does not relieve the sponsor of this construction or alteration from complying with any other federal state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation and zoning authorities.

**Submit the 7460-1 form to the appropriate office.**

---

### **Agency Display Of Estimated Burden For Notice of Landing Area Proposal**

Paperwork Reduction Work Act Statement: This information is collected to evaluate the effect of proposed construction or alteration on air navigation and is not confidential. Providing this information is mandatory for anyone proposing construction or alteration that meets or exceeds the criteria contained in 14 CFR , part 77. We estimate that the burden of this collection is an average 19 minutes per response. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless R displays a currently valid OMB control number. The OMB control number for this collection is 2120-0001.

If you wish to comment on the accuracy of the estimate or make suggestions for reducing this burden, please direct your comments to OMB and the FAA at the following addresses:

**Office of Management and Budget**  
Paperwork Reduction Project 2120-  
0036  
Washington, D.C. 20503

-and-

**U.S. Department of Transportation**, Federal Aviation  
Administration  
Airspace and Obstruction Evaluation Branch, ATP-240  
800 Independence Avenue, S.W.  
Washington, D.C. 20591





James C. Codell, III  
Secretary of Transportation

Commonwealth of Kentucky  
**Transportation Cabinet**  
Frankfort, Kentucky 40622

DIV OF PLANNING

2002 DEC 23 A 10:31

Paul E. Patton  
Governor

Clifford C. Linkes, P.E.  
Deputy Secretary

December 6, 2002



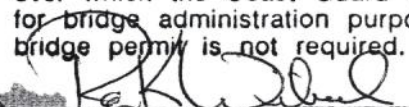
Mr. Roger Wiebusch  
Bridge Administrator  
United States Coast Guard, Bridge Branch  
1222 Spruce Street  
St. Louis MO 63103

Dear Mr. Wiebusch:

Subject: Planning Study  
Lyon, Caldwell, Hopkins, Webster and Henderson Counties  
I-69 Eddyville to Henderson  
Item No. 2 - 69.10

We are requesting your agency's input on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet has assembled a study team to evaluate the proposed reconstruction of the Wendell H. Ford (Western Kentucky) Parkway and the Edward T. Breathitt (Pennyrile) Parkway between Eddyville and Henderson to become part of the national Interstate 69 (I-69) corridor. This is Section of Independent Utility (SIU) No. 5 of the national I-69 corridor which connects Port Huron, Michigan at the Canadian border to the Lower Rio Grande Valley of Texas at the Mexican border. The study is currently in the initial data gathering stage.

Pursuant to the Coast Guard Authorization Act of 1982, it has been determined this is not a waterway over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard bridge permit is not required.

  
ROGER K. WIEBUSCH  
Bridge Administrator  
8th Coast Guard District (obr)

12/24/02  
(Date)

Mr. Wiebusch  
Page 2  
December 6, 2002

We ask that you identify specific issues or concerns of your agency that could affect the development of the project. This planning study will include a scoping process for the early identification of potential alternatives, environmental issues, and impacts related to the proposed project. We believe that early identification of issues or concerns can help us develop highway project alternatives to avoid or minimize negative impacts.

We respectfully ask that you provide us with your comments by January 30, 2003 to ensure timely progress in this planning effort.

During the development of this planning study, comments will be solicited from Federal, state, and local agencies, as well as other interested persons and the general public, in accordance with principles set forth in the National Environmental Policy Act (NEPA) of 1969. The Federal Highway Administration is partnering with us in these efforts. A copy of a public notice placed in state and local newspapers concerning this project is attached.

Other Transportation Cabinet offices or consultants working on behalf of the Transportation Cabinet may also contact you seeking more detailed data or information to assist them in completing their environmental studies for this phase of the project.

We have enclosed the following project information for your review and comment:

- A summary overview for the study including a project location map.
- Year 2001 Traffic
- Year 2030 Traffic
- Accident Information by Accident Severity Issues
- Environmental Issues
- Existing Parkway Conditions and Options for I-69



Mr. Wiebusch  
Page 3  
December 6, 2002

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Jim Wilson of the Division of Planning at 502/564-7183 or [jimmy.wilson@mail.state.ky.us](mailto:jimmy.wilson@mail.state.ky.us). Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 125 Holmes Street, Frankfort, KY 40622

Sincerely,



Annette Coffey, P.E.  
Director  
Division of Planning

AC:JCW:RC

Enclosures

c: Jose Sepulveda (w/a)	Tim Choate
Glenn Jilek (w/a)	Everett Green
Mary Murray (w/a)	Allen Thomas
Marc Williams – WSA	Kevin McClearn
Gina Boaz	Steve Hoefler
Craig Morris	David Waldner
Mike Hancock	Richard Davis
Wayne Mosley	Doug Taylor
Ted Merryman	



United States  
Department of  
Agriculture

Forest  
Service

Daniel Boone  
National Forest

1700 Bypass Road  
Winchester, KY 40391  
859-745-3100

File Code: 1950-5

Date: **JAN. 29 2003**

Annette Coffey, P.E.  
Director  
Division of Planning, KY Transportation Cabinet  
125 Holmes St.  
Frankfort, KY 40622

Dear Ms. Coffey:

I am writing in regards to your letter of December 6, 2002, in which you asked for our input on a planning study to evaluate the proposed reconstruction of the Wendell H. Ford Parkway and the Edward T. Breathitt Parkway between Eddyville and Henderson to become part of the proposed highway project along I-69 Eddyville to Henderson.

You asked us to notify you of specific issues or concerns that we may have that could affect the development of the project described in the information enclosed with the letter.

Because this project is located in the western part of Kentucky, it is well outside the proclamation boundary for the Daniel Boone National Forest. It is also not located upstream from the National Forest in any watersheds that drain into or through the National Forest. For these reasons we have no issues or concerns specific to this project.

Thank you for providing this information and giving us the opportunity to comment on your proposed project.

Sincerely,

  
KEVIN W LAWRENCE  
Planning Staff Officer







January 22, 2003

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, Kentucky 40622

Dear Ms. Coffey:

This is in response to your letter of December 6, 2002 requesting our agency's input and comments on specific issues or concerns that might affect project alternative development for Planning Studies in Lyon County, Caldwell, Hopkins, Webster and Henderson Counties, and I-69 Eddyville to Henderson. We are responding on behalf of the Department of Health and Human Services (DHHS), U.S. Public Health Service.

While we have no project specific comments to offer at this time, we do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate. Mitigation plans which are protective of the environment and public health should be described in the DEIS wherever warranted.

**AREAS OF POTENTIAL PUBLIC HEALTH CONCERN:**

**I. Air Quality**

- dust control measures during project construction, and potential releases of air toxins
- potential process air emissions after project completion
- compliance with air quality standards

**II. Water Quality/Quantity**

- special consideration to private and public potable water supply, including ground and surface water resources
- compliance with water quality and waste water treatment standards
- ground and surface water contamination (e.g. runoff and erosion control)
- body contact recreation

**III. Wetlands and Flood Plains**

- potential contamination of underlying aquifers
- construction within flood plains which may endanger human health
- contamination of the food chain

IV. Hazardous Materials/Wastes

- identification and characterization of hazardous/contaminated sites
- safety plans/procedures, including use of pesticides/herbicides; worker training
- spill prevention, containment, and countermeasures plan

V. Non-Hazardous Solid Waste/Other Materials

- any unusual effects associated with solid waste disposal should be considered

VI. Noise

- identify projected elevated noise levels and sensitive receptors (i.e. residential, schools, hospitals) and appropriate mitigation plans during and after construction

VII. Occupational Health and Safety

- compliance with appropriate criteria and guidelines to ensure worker safety and health

VIII. Land Use and Housing

- special consideration and appropriate mitigation for necessary relocation and other potential adverse impacts to residential areas, community cohesion, community services
- demographic special considerations (e.g. hospitals, nursing homes, day care centers, schools)
- consideration of beneficial and adverse long-term land use impacts, including the potential influx of people into the area as a result of a project and associated impacts
- potential impacts upon vector control should be considered

IX. Environmental Justice

- federal requirements emphasize the issue of environmental justice to ensure equitable environmental protection regardless of race, ethnicity, economic status or community, so that no segment of the population bears a disproportionate share of the consequences of environmental pollution attributable to a proposed project. (Executive Order 12898)

While this is not intended to be an exhaustive list of possible impact topics, it provides a guide for typical areas of potential public health concern which may be applicable to this project. Any health related topic which may be associated with the proposed project should receive consideration when developing the draft and final EISs. Please furnish us with one copy of the draft document when it becomes available for review.

Sincerely yours,



Paul Joe, DO, MPH  
Medical Officer  
National Center for Environmental Health (F16)  
Centers for Disease Control & Prevention





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

January 27, 2003

Ms. Annette Coffey, P.E., Director  
Division of Planning  
Kentucky Transportation Cabinet  
125 Holmes Street  
Frankfort, KY 40622

RE: **Planning Study for I-69 Eddyville to Henderson, KY  
Section of Independent Utility No. 5**

Dear Ms. Coffey:

Thank you for your letter of December 6, 2002 regarding the I-69 Eddyville to Henderson project. We reviewed the Summary Overview and maps you sent, in accordance with Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The purpose of this letter is to provide you with early coordination regarding the project.

The U.S. Environmental Protection Agency (EPA) Regions 4, 5 and 6 cooperatively developed an EPA review approach for the proposed Interstate 69 (I-69) project. EPA's letter and attachments dated February 22, 2002 outlined this approach. Specifically, the package identifies review and technical criteria, upon which EPA will base our review of I-69 NEPA documentation. This package was developed in a coordinated fashion by all three EPA Regional Offices (Regions 4, 5, and 6) involved with I-69. Region 4 hopes that this coordination package will clarify our expectations on the technical analyses and content of I-69 NEPA documents. Please refer to this package (enclosed) when preparing your NEPA documents for this project.

The Summary Overview of the project you provided was helpful, and your map of Environmental Issues Needing Special Consideration is well-detailed. To assist you, we are providing the enclosed maps for your use: Potential Environmental Justice Areas, Sensitive Environmental Areas, and General Landcover Types.

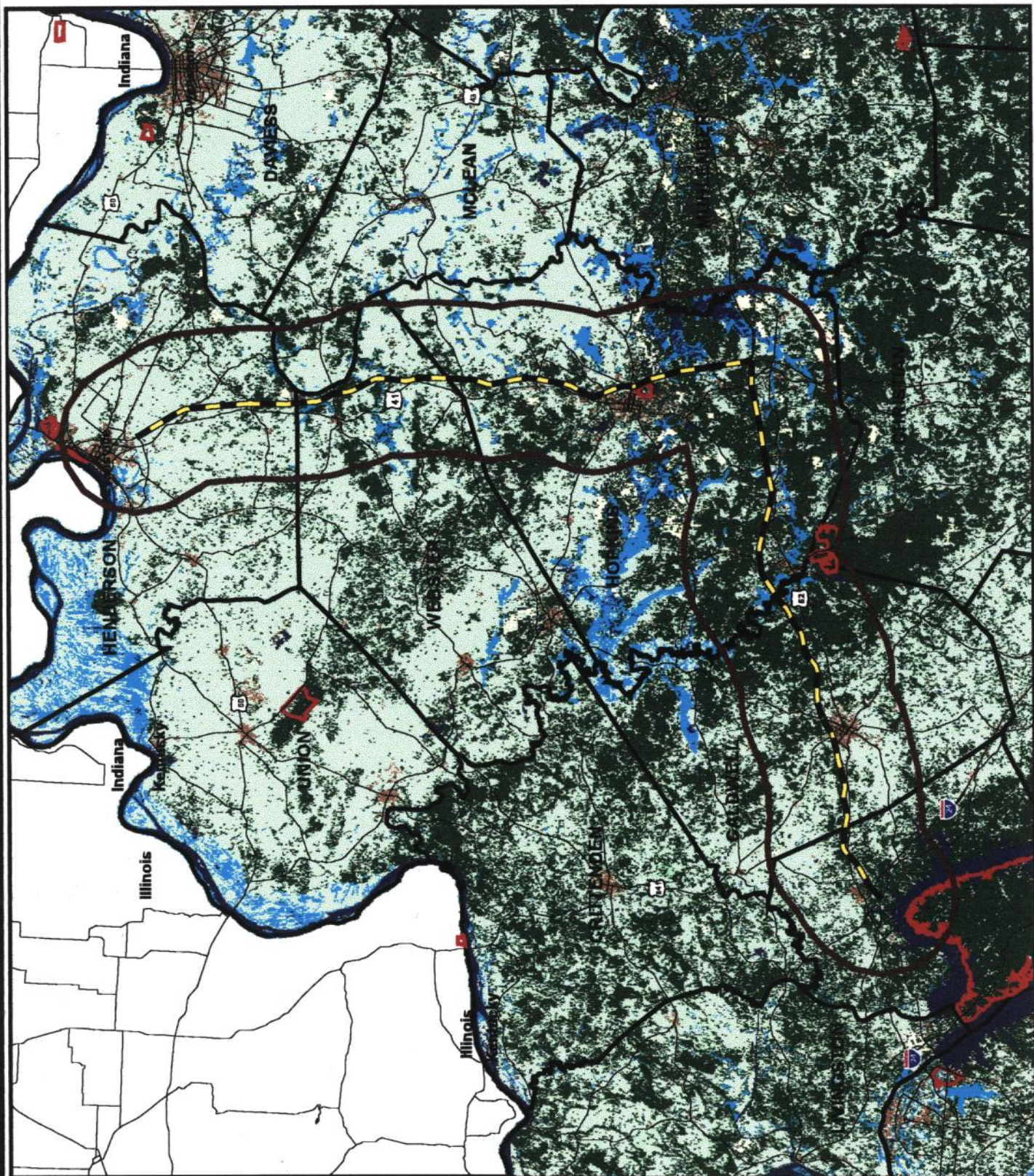
We look forward to reviewing the forthcoming NEPA documents for this project, and a continued productive working relationship with you. If you have any questions or need more information, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

A handwritten signature in dark ink, appearing to read "Heinz J. Mueller", is written over a horizontal line.

Heinz J. Mueller, Chief  
Office of Environmental Assessment






# GENERAL LANDCOVER TYPES AROUND SEGMENT 5 KENTUCKY

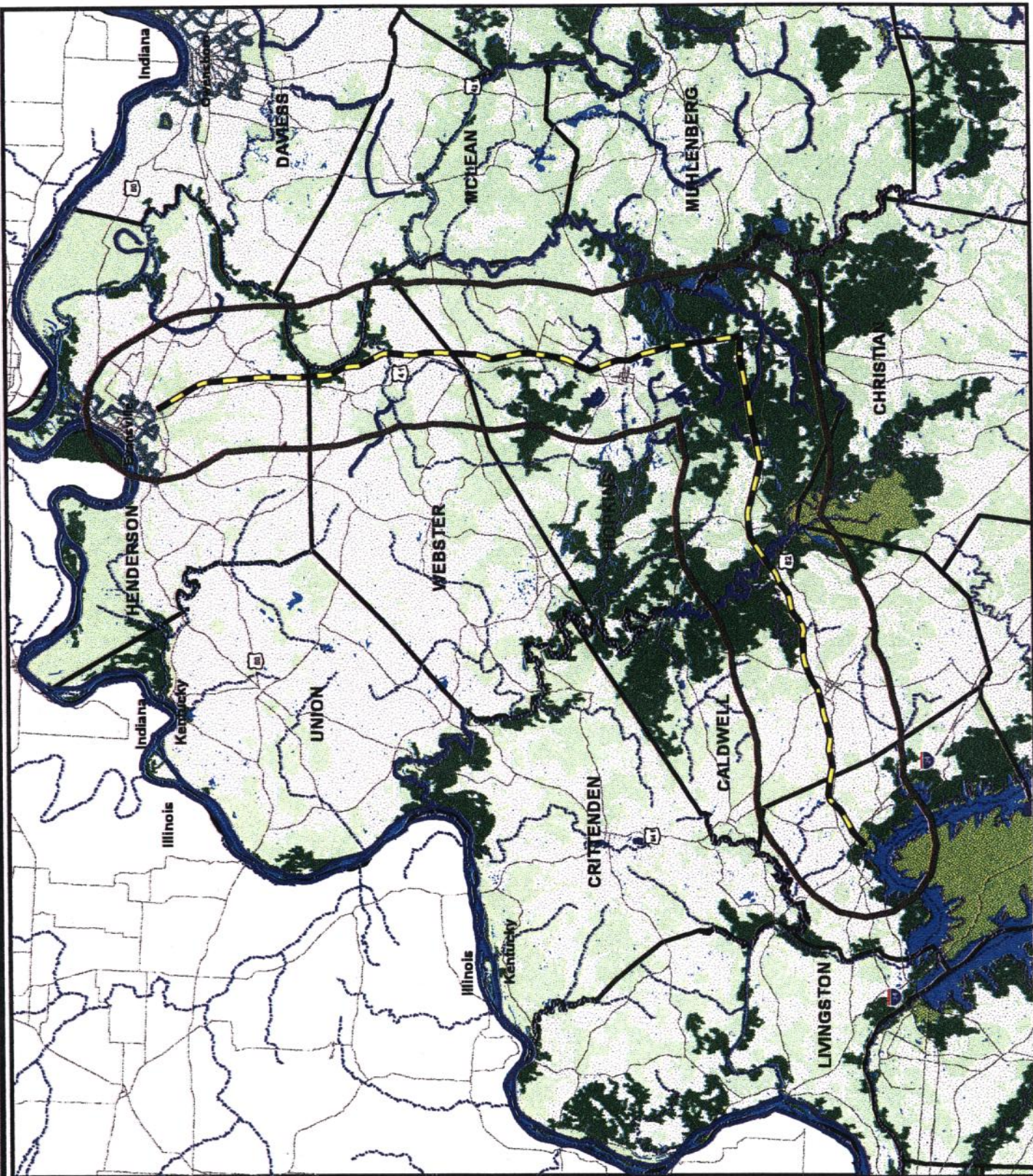
- Segment 5
- 5mi Buffer Zone
- Major Roads
- Parks
- County Boundaries
- General Land Cover Types
- Bare Rock/Soil
- Forest Land
- Grass Land/Row Crops
- Urban Areas
- Water
- Wetlands



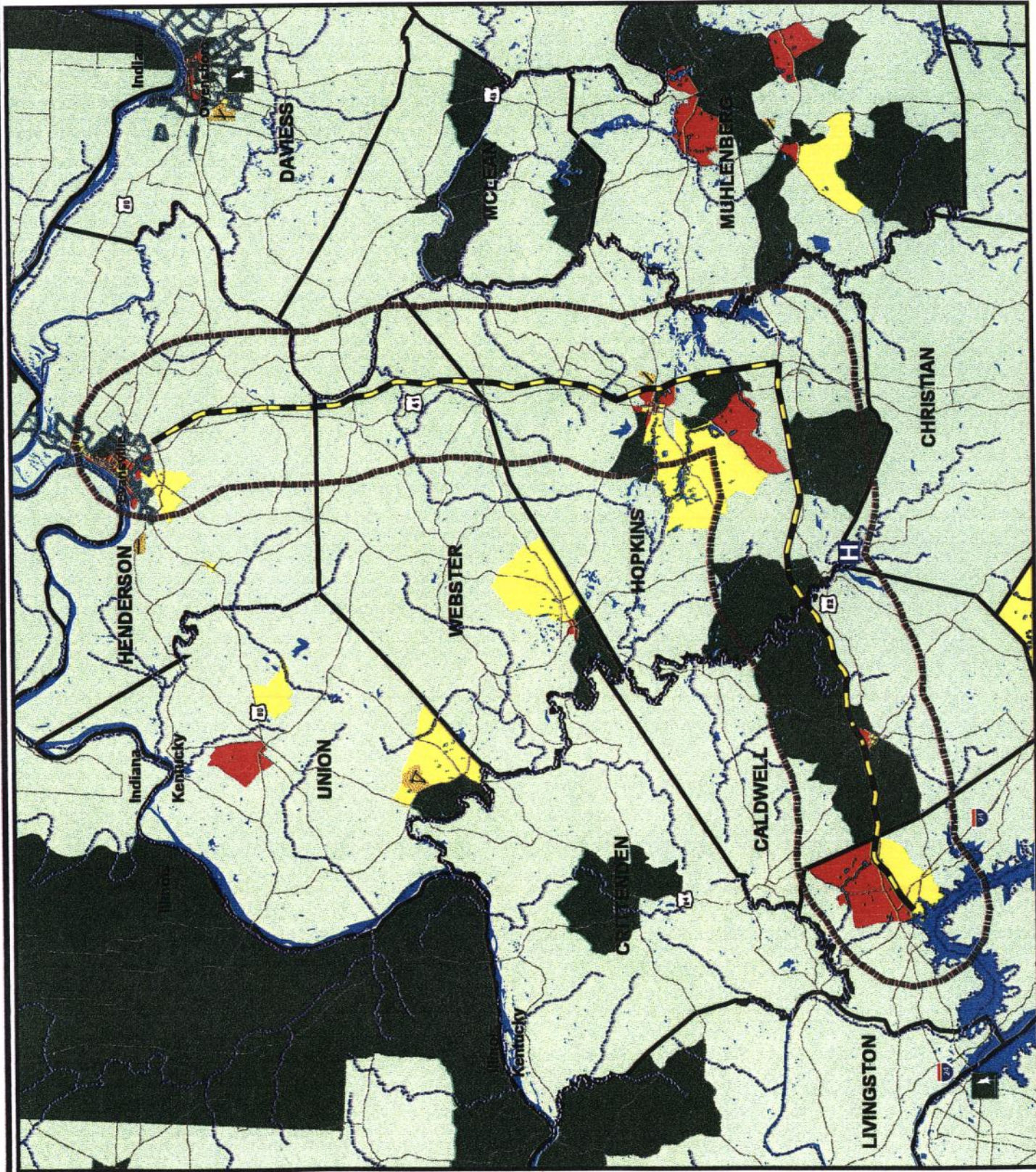


SENSITIVE ENVIRONMENTAL AREAS  
AROUND SEGMENT 5  
KENTUCKY

-  Segment 5
-  5mi Buffer Zone
-  303d Listed Waters
-  Major Roads
-  Major Streams
-  Major Cities
-  Conservation Lands
-  Priority Areas
-  Significant Areas







POTENTIAL ENVIRONMENTAL JUSTICE  
AREAS AROUND SEGMENT 5  
KENTUCKY

- Segment 5
- 5mi Buffer Zone
- Recreation Areas
- Hospitals
- Major Streams
- Major Roads
- Major Cities
- County Boundaries
- Potential EJ Areas
- Low Income
- Minority
- Minority/Low Income
- Non-EJ Areas







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

FEB 22 2002

Mr. Eugene Cleckley  
National I-69 Coordinator  
Director, Southern Resource Center  
Federal Highway Administration  
Suite 17T26  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303

SUBJECT: U.S. EPA's Scoping and Streamlining Coordination Package for Interstate 69  
National Environmental Policy Act (NEPA) Documentation

Dear Mr. Cleckley: *Gene*

The U.S. Environmental Protection Agency (EPA) Regions 4, 5 and 6 agreed to cooperatively develop an EPA review approach for the proposed Interstate 69 (I-69) project. This systematic approach is consistent with the environmental streamlining provisions set forth in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). In subsequent discussions you welcomed this effort and requested that we share the completed approach with the Federal Highway Administration (FHWA). In our opinion, a streamlined approach for I-69 should focus on improving communication and coordination among environmental and transportation agencies, increasing the efficiency of the transportation project development process through concurrent environmental reviews, and providing a mechanism for avoiding or resolving interagency disputes. EPA is suggesting a streamlined approach for I-69 environmental review that includes two basic areas of emphasis: 1) establishment of consistent, integrated review processes, and 2) development of EPA's technical expectations for NEPA documentation content and analysis.

The enclosed streamlining coordination package is the result of our inter-regional effort and represents the first step in furthering these objectives. Specifically, the package identifies review and technical criteria upon which EPA will base our review of I-69 NEPA documentation. This package has been developed in a coordinated fashion by all three EPA Regional Offices (Regions 4, 5, and 6) involved with I-69. By sharing this coordination package with you, EPA anticipates that this should avoid future issues related to the technical analysis and content of future I-69 NEPA documents and therefore help expedite FHWA's program delivery.

Further, we believe this approach can become a model for interagency involvement. We also recommend the use of the NEPA/404 Merger Process to ensure concurrent reviews and to streamline the permitting process for the individual project segments. Use of the Merger Process would result in regular interagency meetings, coordination efforts, and concurrence points with established timelines.

In addition, as has been discussed with you, the three EPA Regions involved with the project have information and expertise that may be of benefit to the process such as the Region 6 Cumulative Risk Model, Region 5 Critical Ecosystems database, and Region 4 Southeast Ecological Framework database. Regional staff have already provided some of this information and would be interested in exploring further applications if resource constraints can be addressed.

A streamlined approach for I-69 will mutually benefit both EPA and FHWA. One benefit of streamlining will be to further the dialogue on the inter-relationship of growth, sustainable development, and transportation infrastructure and to identify opportunities for environmental protection, community enhancement, and economic development throughout the entire length of the proposed I-69 corridor. With that in mind, EPA Regions 4, 5, and 6 are committed to assist in achieving these objectives. Specific EPA regional contacts are included at the end of the enclosed package.

We would like to discuss with you how we can best advance EPA's and FHWA's mutual objectives for this important national project.


Sincerely,



Phyllis P. Harris  
Environmental Accountability Division  
Region 4



Jerri-Anne Garl  
Office of Strategic Environmental Analysis  
Region 5



Samuel Coleman  
Compliance Assurance and Enforcement Division  
Region 6

Enclosure

cc: Federal Highway Administration -- Arkansas Division  
Federal Highway Administration -- Kentucky Division  
Federal Highway Administration -- Indiana Division  
Federal Highway Administration -- Louisiana Division  
Federal Highway Administration -- Mississippi Division  
Federal Highway Administration -- Tennessee Division  
Federal Highway Administration -- Texas Division  
U.S. Army Corps of Engineers -- Great Lakes and Ohio River Division  
U.S. Army Corps of Engineers -- Mississippi Valley Division  
U.S. Army Corps of Engineers -- Southwestern Division  
U.S. Fish & Wildlife Service -- Great Lakes and Ohio Rivers Region



U.S. Fish & Wildlife Service – Southeast Region  
U.S. Fish & Wildlife Service – Southwest Region  
Arkansas State Highway and Transportation Department  
Kentucky Transportation Cabinet  
Indiana Department of Transportation  
Louisiana Department of Transportation and Development  
Mississippi Department of Transportation  
Tennessee Department of Transportation  
Texas Department of Transportation

Federal Highway Administration  
Arkansas Division  
Federal Office Building  
700 W Capitol Avenue  
Room 3130  
Little Rock, AR 72201-3298

Federal Highway Administration  
Indiana Division  
575 N Pennsylvania Street  
Room 254  
Indianapolis, IN 46204-1576

Federal Highway Administration  
Kentucky Division  
John C Watts Federal Building  
330 W Broadway  
Frankfort, KY 40601-1922

Federal Highway Administration  
Louisiana Division  
5304 Flanders Drive, Suite A  
Baton Rouge, LA 70808-4348

Federal Highway Administration  
Mississippi Division  
666 North Street  
Suite 105  
Jackson, MS 39202-3199

Federal Highway Administration  
Tennessee Division  
640 Grassmere Park Road  
Suite 112  
Nashville, TN 37211-3568

Federal Highway Administration  
Texas Division  
Federal Office Building  
300 East Eighth Street  
Room 826  
Austin, TX 78701-3233

U.S. Army Corps of Engineers  
Great Lakes and Ohio River Division  
CELRD-ET-CO-F



550 Main Street  
Cincinnati, OH 45201-1159

U.S. Army Corps of Engineers  
Mississippi Valley Division  
CEMVD-ET-CO  
1400 West Walnut Street  
Vicksburg, MS 39181

U.S. Army Corps of Engineers  
Southwestern Division  
CESWD-ETO-R  
Earl Cabell Federal Building  
1100 Commerce Street  
Dallas, TX 75242-0216

U.S. Fish and Wildlife Service - Region 3  
Great Lakes and Ohio Rivers Region  
Bishop Henry Whipple Federal Building  
1 Federal Drive  
Fort Snelling, MN 55111

U.S. Fish and Wildlife Service - Region 4  
Southeast Region  
1875 Century Boulevard  
Suite 200  
Atlanta, Georgia 30345-3301

U.S. Fish and Wildlife Service - Region 7  
Southwest Region  
P.O. Box 1306  
Albuquerque, NM 87103-1306

Arkansas State Highway and Transportation Department  
P.O. Box 2261  
Little Rock, Arkansas 72203

Kentucky Transportation Cabinet  
501 High Street  
Frankfort, KY 40622

Indiana Department of Transportation  
100 N. Senate Ave.  
Room IGCN 755  
Indianapolis, IN 46204

Louisiana Department of Transportation and Development  
P.O. Box 94245  
Baton Rouge, Louisiana 70804

Mississippi Department of Transportation  
P. O. Box 1850  
Jackson, MS 39215-1850

Tennessee Department of Transportation  
James K. Polk Building, Suite 900  
505 Deaderick Street  
Nashville, Tennessee 37243-0334

Texas Department of Transportation  
125 E. 11th Street  
Austin, Texas 78701-2483



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**STREAMLINING COORDINATION PACKAGE**  
**FOR INTERSTATE 69**  
**NATIONAL ENVIRONMENTAL POLICY ACT DOCUMENTATION**

**Introduction**

To address the environmental streamlining provisions set forth in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), the U.S. Environmental Protection Agency (EPA) agreed to cooperatively set goals and develop a systematic review approach for all EPA Regional Offices involved with the proposed Interstate 69 (I-69). This approach is meant to improve communication and cooperation within EPA and among EPA and other agencies involved with this important national priority project.

This streamlining coordination package represents a comprehensive inter-regional approach related to EPA involvement with the I-69 project. Specifically, the package identifies review and technical criteria upon which EPA will base our review of documentation prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) for the I-69 project. This document has been developed in a coordinated fashion by all three EPA Regional Offices (Regions 4, 5, and 6) involved with I-69 with detailed input from other EPA programs (i.e., air, water, wetlands). Major NEPA topics have been addressed (e.g., purpose and need, alternatives, wetlands impacts/mitigation, and secondary and cumulative impacts).

This coordination package identifies a number of state and federal environmental programs with regulatory requirements which will likely apply to various segments of the I-69 project. The information is intended for use as a general framework that EPA intends to apply across all segments of I-69, yet allows for consideration of segment-specific project development processes or environmental issues into its framework. This information is intended to identify EPA's basic information needs and analytical expectations for NEPA documentation related to I-69.

**Purpose and Need**

The NEPA document for each Segment of Independent Utility (SIU) should include a summarized version of the National I-69 Purpose and Need documentation along with any information specifically referring to the SIU in question (e.g., route definition, logical termini, etc.). This should include a discussion of logical termini that are specified in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), as part of the proposed National Corridor 18/I-69, as well as any other legislative mandates that would influence the route definition and the timing of this project. The international trade goals in accordance with the North American Free Trade Agreement (NAFTA) should be stated. Documentation that identifies how the new interstate would accomplish these goals should be provided.

In order for EPA to fully evaluate the alternatives, the document should identify the basic underlying transportation problems (deficiencies) or needs between the two logical termini for the SIU under consideration. Traditional traffic data or analysis should be presented to substantiate each identified need. For example: if the problem is congestion, then Level of Service (LOS) data should be presented to support this need. In addition, traffic numbers [e.g., LOS, vehicle miles of travel (VMT), vehicle hours of travel (VHT), etc.], if applicable, for existing (current) and future (20 year) forecasts should also be presented.

The traffic analysis should include projected traffic volumes that would utilize the facility from the connecting portions of the proposed I-69. Even though a facility would presumably have independent utility, each segment of the proposed I-69 is envisioned to connect with other segments. The traffic analysis must include an estimation of additional traffic volumes, particularly truck traffic, that would utilize the proposed I-69. This should include traffic considered as "pass-through" (NAFTA-generated or other national traffic) to the study area, as well as traffic that either originates or would ultimately end their destination in the study area. This traffic information should be split out and reported separately.

As a NAFTA highway transporting goods, heavy truck traffic can be expected. Projections for truck traffic using the interstate highway should be consistent from state to state when incorporated in the air quality and noise analysis for each I-69 section, although additional national truck traffic may vary by state. It should also be noted that the National Highway Traffic Safety Administration has promulgated rulemaking and an associated Environmental Assessment (EA) regarding the safety standards for Mexican trucks traveling along the NAFTA highway. NEPA documents generated for the various sections of I-69 should be consistent with this rule and EA.

If an individual SIU states that there is an economic development need in the Purpose and Need statement, then that need must be credibly substantiated. This might include the use of unemployment figures, poverty figures, income figures as compared to the rest of the State. This data should support the location of the termini for each SIU. The international trade issues germane to the project, assuming they have been defined, should be stated as well.

Any local need identified and substantiated should have measurable objectives that will be used to assess whether an alternative or combination of alternatives would reasonably meet (i.e., solve) the problems or needs identified in the document. The overall purpose and need statement, including these objectives, should be developed with input from cooperating regulatory and resource agencies, as project alternatives, impacts, and impact mitigation are all evaluated in the context of project need.

## **Alternatives**

EPA encourages consideration of a full range of feasible alternatives to accomplish the varied



needs related to development of I-69. Generally, we expect that if an EA is prepared, a minimum of one feasible action alternative as well as the No-Action Alternative should be considered. A Draft Environmental Impact Statement (EIS) should include a minimum of two feasible action alternatives which should be fully considered, in addition to the No-Action Alternative. Other alternatives that should be considered include Transportation System Management/Travel Demand Management alternatives which maximize the efficiency of existing highways or transportation networks. When applicable, a multi-modal alternative that contains a combination of transportation modes (i.e., rail, air, roadway, etc.) should also be considered (especially in metropolitan areas).

The NEPA document should also discuss the status of the adjacent SIUs, including those in other states, and identify and provide an analysis of different alternative termini locations within the Study Area in relation to the termini of the neighboring SIUs. EPA recommends that the Draft EIS should identify a preferred alternative. This minimizes some of the issues associated with rating every action alternative and enables us to provide a thorough review of the environmental issues associated with the preferred alternative. The preferred alternative should avoid or minimize adverse impacts, so that the need for mitigation of impacts will be lessened or eliminated. A critical factor of the analysis of alternatives is the avoidance or minimization of adverse impacts. When alternatives are rejected, a rationale for rejection should be provided. The rationales should include environmental reasons, along with other considerations.

If stimulating economic development is identified as a major/primary need, appropriate alternatives that consist of a combination of transportation modes with other economic development strategies in the study area should be identified and analyzed. The analysis of economic development alternatives must contain an evaluation of the environmental impacts that result from that economic development (see Secondary and Cumulative Impacts section).

Alternatives should include corridors or alignments that utilize existing highway to the maximum extent practicable, even if this includes extending the alignment outside the "green" I-69 representative corridor depicted in Exhibit 2 of the February 7, 2000, I-69 (Corridor 18) Special Environmental Study - Statement of Purpose and Need for Interstate Highway 69. Furthermore, appropriate flexibility should be allowed in siting specific alignments outside the "green" corridor if environmental or other information suggests movement of an alignment outside this area would avoid or minimize environmental effects. The number and type of alternatives that meet the overall purpose and need, as well as the rejection of specific action alternatives, should be developed with input and concurrence from cooperating regulatory and resource agencies in order to streamline review of the NEPA document and expedite permitting requirements in later phases, as appropriate.

### **Air Quality**

The NEPA document should contain a discussion of the transportation air quality regulatory

requirements, regional air quality concerns in the project area, and a localized carbon monoxide (CO) analysis. The document should assess existing air quality conditions in terms of National Ambient Air Quality Standards (NAAQS), Federal Prevention of Significant Deterioration (PSD) increments, and state air quality standards (particularly if they are more stringent than the federal regulations). Any aspects of the project that could adversely affect air quality, in terms of creating new violations of Federal air quality standards, increasing the frequency and severity of existing violations of the standards, or delaying attainment of the standards should be identified. All emissions resulting from the project must be in compliance with applicable air quality regulations, particularly the NAAQS for criteria air pollutants [e.g., ozone, carbon monoxide (CO), nitrogen oxides, sulfur dioxide, lead and particulate matter (PM)] in designated non-attainment or maintenance areas.

*Mesoscale Concerns:* Ozone, hydrocarbons, and nitrogen oxides air quality concerns are regional in nature and as such meaningful evaluation on a project-by-project basis is not possible. Therefore, the EIS should include a discussion of regional air quality conditions, depending on the location of the project, as described below:

Non-attainment/Maintenance Areas: If the project is located in a nonattainment or maintenance area, the EIS must document that provisions of 40 CFR Part 93 Subpart A, Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Project Development, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, have been satisfied. For example, the project should be included in a Long Range Transportation Plan (LRTP) and/or Transportation Improvement Program (TIP) that is in conformance with an approved State Implementation Plan (SIP). The relationship of the project to the SIP should be described in the EIS. Specifically, the EIS must show that the project (without significant changes to the scope and/or design) has been included in the LRTP and/or TIP, and that FHWA has issued a conformity determination for the most recent SIP.

Attainment Areas: If the project is not located in a nonattainment or maintenance area, the EIS should make a negative declaration for Section 176(c) of the Clean Air Act. In this case, the provisions of 40 CFR Part 93 Subpart A, Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Project Development, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, will not apply.

*Microscale (Project-level) Concerns:* The primary pollutant that is analyzed at the project stage is carbon monoxide. Therefore, CO emissions must be addressed by a localized hot spot analysis. The locations and level of detail for conducting analyses should be collectively determined by the affected agencies. The requirements of 40 CFR Part 93 Subpart A for carbon monoxide emissions must be satisfied. A localized PM-10 quantitative hot spot analysis will not be required until EPA releases modeling guidance in the Federal Register.

Coordination with state/local/regional air pollution control agencies on air quality planning, air



quality modeling, compliance with federal/state air quality standards, the need for air permits, air quality monitoring, and mitigation for adverse impacts should be identified in the NEPA document. The air quality analyses at the regional and local scales should include as modeling inputs the additional traffic volumes that would utilize the I-69 facility from other segments (as described in the purpose and need section above). Parties which will be responsible for implementing air quality mitigation measures should be included in the document.

*Construction:* It is recommended that all construction equipment be tuned to manufacturer's specifications to reduce air emissions. Open burning should also be minimized/avoided to reduce the emissions of ozone precursors. It is recommended that any necessary open burning be coordinated with the state and/or county regarding permitting needs. The NEPA document should discuss the types and effectiveness of any mitigation measures that will be used to protect air quality (e.g., vapor recovery systems, fumes incinerators, and dust control measures) during construction phase. We recommend water for fugitive dust control during construction, instead of oils and other chemicals.

*Example (Segment 9):* Shelby County, Tennessee, is currently a maintenance area for both ozone and carbon monoxide. As such, the LRTP must include an air emissions analysis that demonstrates conformity with the SIP. Since Segment 9 of the proposed I-69 traverses Shelby County, it must be included in the LRTP and the corresponding conformity analysis. This analysis and relationship to the LRTP should be identified in the NEPA document.

## Noise

Interstate construction and operational (highway) noise should be predicted for the no build and each of the build alternatives. State-of-the-art noise modeling should be utilized and consistent methods used by the DOTs of the various states involved. In general, a greater level of consistency in approach, methodology and mitigation of noise impacts is needed for the I-69 project.

*Construction Noise:* The NEPA document should analyze construction noise attributable to the project. Typical noise levels produced by construction equipment (e.g., trucks, front end loaders, pile drivers, etc.) within 50 feet, which are available in the literature, should be disclosed. The total project construction time (months, years) should also be estimated to assess the magnitude of the construction noise impact. Attempts should also be made to estimate the temporary construction time associated with any one feature along the ROW or section thereof. For example, how long is construction expected to take near any given affected residence or for an average mile of roadway? This information would allow affected residents to approximate their degree of noise disturbance during construction.

Although temporary, construction noise should be reasonably mitigated in the vicinity of residential areas or other noise-sensitive land uses. Under normal circumstances, EPA

recommends that construction should not start before 7:00 AM or continue after 7:00 PM during the work week and should be discontinued on Sundays (preferably the whole weekend) and on locally-observed federal and/or state holidays (exceptions could involve nighttime construction in urban areas that would otherwise involve lane closures during daytime peak traffic periods). In addition, the use of "hush houses" should be considered around any stationary equipment to shield noise at its source. EPA recommends that all motorized equipment be properly tuned to the manufacturer's specifications for additional source reduction. All construction equipment should be equipped with noise attenuation devices, such as mufflers and insulated engine housings. Such mitigative methods should be identified in the NEPA document for implementation as part of future construction-related activities.

*Highway Noise:* Given that I-69 is a national highway under NAFTA, several states will be crossed and consistency in the noise analysis could become an issue. In order to provide consistency within the streamlined NEPA process for the I-69 sections, EPA recommends the following measures:

Definitions of Substantial Noise Increases - Pursuant to 23 CFR 772, the Federal Highway Administration (FHWA) provides the state DOTs discretion in their interpretation of what constitutes a "substantial increase" in noise levels attributable to their highway projects. When predicted traffic noise levels substantially exceed the existing noise level, it is defined as a traffic noise impact which warrants further attention. Some states consider a 10 dBA or greater increase as substantial while other states believe that increases are not substantial until increases are 15 dBA or greater. EPA believes that a 10 dBA or greater increase due to the project is substantial (significant) since a 10 dBA increase is perceived as a doubling of sound by the human ear. For those states that adhere to the 15 dBA or greater threshold, EPA requests that noise analysis also be provided for a 10-14 dBA increment category as well as the 15 dBA or greater increment category.

Consistent Use of Noise Metrics - Similar to the states' discretion in defining substantial incremental increases, FHWA allows the use of either the  $L_{eq}$  or the  $L_{10}$  metric in the noise analysis. In order to achieve consistency within the noise analysis of this national highway, EPA requests that if the use of  $L_{10}$  is prescribed by state regulation, a noise analysis using  $L_{eq}$  should also be provided to supplement the required  $L_{10}$  analysis. However, if all states along the route use  $L_{10}$ , then  $L_{eq}$  data need not be secondarily provided since consistency would already be achieved.

Consistent Use of Noise Models - Modeling should also be consistent for noise analyses along the I-69 NAFTA highway. It is particularly important that the same noise model version be used for both the Draft EIS and Final EIS and among EISs for I-69 sections to the extent possible. For example, use of STAMINA followed by the use of the Traffic Noise Model could create concern regarding model acceptability.



*Noise Mitigation:* Noise abatement should be considered by FHWA when project noise impacts approach FHWA Noise Abatement Criteria or meet or exceed the existing noise levels by the state thresholds, i.e., incremental increases of 10 dBA or greater (preferred by EPA) or 15 dBA or greater. Forms of noise mitigation include -- but are not limited to -- the construction and use of fabricated noise barriers and vegetated earthen berms (suburban areas). Vegetative screens included as part of highway landscaping can also be useful to visually remove receptors from the project, but have to consist of a substantial width of dense evergreen vegetation to offer any real attenuation. In general, avoiding noise impacts via alignment shifts is frequently the most effective form of "mitigation" (since it avoids or minimizes the need for attenuation) and should therefore be emphasized during the alternative analysis.

### **Waters of the United States and Aquatic Resources**

The EIS should identify and discuss the location, amount, type, and quality of waters of the U.S., including wetlands, in the study area, by whom they were delineated (i.e., U.S. Army Corps of Engineers (COE), contractor, lead agency, etc.), the delineation method(s) used, and impacts to these resources for each action alternative. All discussions of waters of the U.S. should be broken out by rivers/streams and wetlands. Include maps, text, and tables that feature areas occupied by wetlands, aquatic systems, and non-wetland riparian habitat. Specific wetland and other waters of the U.S. requirements are as follows:

*NEPA/404 Merger:* If waters of the United States may be impacted by activities regulated by Section 404 of the Clean Water Act, EPA strongly recommends that the NEPA document contain a thorough discussion of the proposed project's consistency with Federal Guidelines for specification of disposal sites for dredged or fill materials [the 404(b)(1) Guidelines found at 40 CFR Part 230]. In order to demonstrate compliance with the 404(b)(1) Guidelines, the NEPA document should meet the following criteria to the extent possible:

- The proposed action must be the practicable alternative which would have the least adverse impact on the aquatic ecosystem [40 CFR 230.10(a)]. If wetlands would be filled, then the NEPA document should explain why there are no practicable alternatives to locating the project outside jurisdictional wetlands and demonstrate how the project has been designed to minimize harm to existing wetlands.
- The proposed action must not cause or contribute to significant degradation of waters of the United States including wetlands and other special aquatic sites [40 CFR 230.10(c)]. Significant degradation includes the loss of fish and wildlife habitat and the loss of other wetland habitat values and functions. Significant degradation also includes cumulative impacts.
- The proposed project does not violate state-adopted, EPA-approved water quality standards or jeopardize the continued existence of any species listed as threatened or

endangered under the Endangered Species Act [40 CFR 230.10(b)].

- Minimize the number of acres subject to Section 404 jurisdiction that would be permanently lost or degraded due to impacts other than the placement of fill (e.g., the impacts of erosion, sedimentation and runoff of pollutants on wetland habitats; diversion of water from wetland habitats).
- Direct, indirect and cumulative impacts to these resources should be fully described.

*Avoidance and Minimization:* Impacts to wetlands and stream resources should be avoided and minimized to the maximum extent practicable. As described above, feasible alternatives that avoid wetland impacts should be evaluated consistent with the Section 404(b)(1) Guidelines. In addition, further fragmentation of remaining large contiguous undeveloped wetland or riparian areas should also be avoided. Special attention should also be given to avoidance and minimization of impacts in areas assigned special regional, state, or local designation or recognition (i.e. Scenic Rivers, wildlife management areas, etc.).

*Characterization:* Wetland types should be characterized using the hydrogeomorphic (HGM) classification for wetlands (Brinson 1993) and augmented with vegetation and hydroperiod modifiers, such as those utilized nationally by Cowardin et al. (1979)[Citation information is included in Appendix A below]. Where sufficient documentation exists, wetland types and descriptors should follow regional or local protocol, such as those found in the Tennessee Wetlands Conservation Strategy (GIWC 1998). Stream types should be delineated according to the Rosgen classification of natural rivers (Rosgen 1994, 1996) which is based on the fluvial geomorphic condition of rivers and their valleys.

Where rivers and streams are not adequately evaluated by the wetland functional assessment methodology utilized, impacts to river and stream channels should be evaluated utilizing appropriate local or State conservation plans or strategies (i.e., KDOW 2001) or regional guidelines, such as the North Carolina Stream Mitigation Guidelines (NCWRC 1996, NCDENR 2001) or the Compensatory Stream Mitigation Standard Operating Procedure developed by the COE Savannah District (COESD 2000).

The NEPA document should also identify farmed wetlands (FW) and prior converted wetlands (PCW) in the project study area. The Natural Resources Conservation Service (NRCS) has determined which areas are PCW and which areas are considered FW. If the State DOT, NRCS, or private landowners cannot verify a PCW or FW designation (which happens often since these determinations were made many years ago), then a delineation should be completed based on the current conditions at the site. Mitigation will be required for impacts to farmed wetlands.

*Quality:* The quality of the wetland resources proposed for impact should be evaluated using a wetland functional assessment methodology. Where the appropriate guidebooks have been developed (e.g., Kentucky, Mississippi, and Tennessee), HGM should be utilized (Ainslie et al.



1999, Smith and Klimas 2000, Wilder and Roberts 1999). Where the appropriate HGM guidebooks have not been developed, equivalent functional assessment methodologies should be utilized.

*Quantity:* Impacts to wetlands and other waters should be appropriately quantified for each alternative considered in the EIS. For example, the amount of impacts to wetlands should be characterized in terms of acreage, while impacts to stream channels should be characterized in terms of linear feet of stream and stream order. Impacts for each alternative should be compiled to facilitate comparison.

*Mitigation:* A draft mitigation plan should be developed during the NEPA process to compensate for predicted wetland and stream losses that remain following efforts to avoid and minimize such impacts.

Wetlands: Wetland restoration is EPA's preferred mitigation option for impacts to wetlands. Wetland restoration is normally considered an action that successfully restores all three wetland parameters (hydric soils, hydrophytic vegetation, and wetland hydrology) to an area that was formerly a wetland, but where at least one of the aforementioned parameters has been removed. At a minimum, any restored site must meet the criteria outlined in the 1987 COE wetland delineation manual for a jurisdictional wetland (or the Clean Water Act definition of a water of the U.S.). However, site selection and the specific restoration measures employed should be designed to replace the aquatic ecosystem functions lost or impaired due to the proposed project, and this may entail more than simply the three parameters.

Enhancement is the second preference for mitigation for impacts to wetlands. Enhancement measures must address a suite of functions, as opposed to only a single function, and the enhancement measures themselves must not adversely affect other wetland functions currently performed or capable of being performed by the mitigation site. EPA does not view the conversion of one wetland type to another as enhancement. As with wetland restoration, it is important to establish a baseline condition for a wetland prior to any action, and then establish measurable performance criteria to quantify the level of enhancement. The results of the aforementioned wetland functional assessment will assist in determining the appropriate type, location and amount of mitigation for impacts to wetlands.

Streams: Stream restoration is EPA's preferred mitigation option for impacts to streams. Stream restoration includes actions taken to correct previous alterations that have destroyed, diminished, or impaired the character and function of streams or rivers. Restoration is the process of converting an unstable, altered, or degraded stream channel to its natural or referenced stable condition, with consideration of recent and future watershed conditions. This process may include restoration of the stream's geomorphic dimension, pattern and profile and/or biological and chemical integrity, including

transport of water and sediment produced by the streams' watershed in order to achieve dynamic equilibrium. Other components of stream mitigation may include riparian buffer restoration and preservation of appropriately buffered streams. The results of the aforementioned wetland functional assessment will assist in determining the appropriate type, location and amount of mitigation for impacts to stream assessment.

Location: While mitigation for otherwise disparate impacts may be clustered to provide the maximum level of ecological benefit, impacts in "special designation" areas or watersheds may require mitigation in the subject watersheds.

The mitigation proposal should include the proposed mitigation replacement ratio, the habitat value and proposed location of replacement habitats, general grading and revegetation plans and a biological maintenance and monitoring program. Clear mitigation goals and objectives and quantifiable criteria by which to judge the success or failure of mitigation should be provided. The proposal should include commitments to ensure the restoration, creation, and protection of wetland habitats of equal or greater resource value.

### **Water Quality & Quantity**

EPA is concerned about degradation of water quality in various waterways from erosion, siltation and other pollutants associated with road construction and operations. The NEPA document should discuss potential impacts to water quality, designated uses and biological resources from construction and operations of the proposed I-69. The discussion in the document should be of sufficient detail to determine which alternatives are environmentally preferable. Site-specific water quality problems need to be assessed in greater detail, if applicable, including the adoption of site-specific mitigation measures to protect water quality and designated uses.

Protecting water quality ensures the protection of its designated uses. Especially critical is the protection of several sensitive uses. It is important to protect water quality in order to maintain freshwater and wildlife habitats, since many species are sensitive to the introduction of pollutants or the adverse modification of their habitats. It is also important to protect groundwater recharge and freshwater replenishment, particularly if public drinking water supplies could be adversely affected. These sensitive beneficial uses should be carefully considered when evaluating potential impacts caused by the placement of fill, erosion, sedimentation, the runoff of pollutants, and the accidental discharge of hazardous waste or toxic substances.

*Characterization:* The NEPA document should identify all surface waters that may be affected by the proposed project, as well as current drainage patterns in the project study area. The document should identify the existing and potential designated uses of these surface waters. Protected designated uses for streams, creeks, lagoons, tidal areas and other surface waters may include one or more of the following: cold and warm freshwater habitat; marine habitat; fish spawning and migration; shellfish habitat; wildlife habitat; preservation of rare, threatened or



endangered species; groundwater recharge; freshwater replenishment; public drinking water supplies; agricultural supply; and water contact and non-contact recreation. Individual waterbodies in the vicinity of the project not meeting designated uses should be identified in the NEPA document. The causes and sources of the impairments should also be identified.

Critical habitat areas (wildlife feeding and drinking areas; fishery migration, spawning or rearing areas; sensitive aquatic habitats such as wetlands; riparian resources; critical habitat for threatened and endangered species) should be identified in the study area, including a description of the existing designated uses and resource values of these critical areas.

*Impacts and Coordination:* The document should discuss any proposed crossings of water bodies. In general, crossings should be minimized. Unavoidable crossings should be strategically placed to reduce harm by avoiding fish spawning areas, avoiding fringe wetlands, approaching at right angles to streams, etc. Impacts to critical habitat areas, described previously, that cannot be avoided should be discussed. The document should assess how altering drainage patterns and characteristics will affect drainage hydrology, surface runoff, erosion potential, soils vegetation, and water quality. The document should include an analysis of project effects on floodplains in the study area. This includes using maps prepared by the Federal Emergency Management Agency, National Flood Insurance Program, and other appropriate agencies to determine whether the proposed action is located in or will likely affect a floodplain. The document should discuss these impacts and also describe the alternatives considered. Compliance with Executive Order 11988 on floodplain management should be documented. EPA strongly recommends bridging of floodplains whenever feasible. Any wetland loss or other impacts contributing to loss of floodwater storage or retention functions should be appropriately mitigated with in-kind replacement of those functions.

The NEPA document should discuss how the project will comply with state and local water quality management plans, state water quality objectives; and state-adopted, EPA-approved water quality standards. The state DOT should work closely with state water pollution control agencies, state fish and game agencies, the U.S. Fish and Wildlife Service (USFWS), and/or the National Marine Fisheries Service (NMFS) on water quality standards; the protection of water quality, designated uses and biological resources; mitigation and monitoring for adverse impacts. If the proposed project includes disturbance of five or more acres of land during construction, and point source discharges into waters of the United States (i.e., water bodies such as rivers, lakes, wetlands, etc.), coverage under an EPA stormwater National Pollutant Discharge Elimination System (NPDES) General Permit or state equivalent may be required. The state DOT should contact the appropriate state environmental agency for further information on the NPDES program.

In addition, Section 319 of the CWA requires states to assess nonpoint source water pollution problems, develop nonpoint source pollution management programs, and implement controls to protect and improve water quality and beneficial uses. The state DOT should work closely with appropriate state water pollution control agencies to determine what pollution control measures



should be adopted to advance the state's nonpoint source management plans in the project area. Specifically, the status of development of Total Maximum Daily Loads (TMDLs) for any waterways in the study area should be identified and how the proposed project could affect implementation of restoration efforts in these watersheds.

*Mitigation:* The NEPA document should discuss what mitigation measures (e.g., nonpoint source controls) will be implemented to protect or improve water quality, designated uses, and biological resources. Mitigation measures related to protection of water quality should be tailored depending on the condition of the specific water resource as well as the severity of the potential impacts. Best Management Practices (BMPs) should be used to reduce erosion during construction and operation of the facility. In the vicinity of impaired surface water resources in the project area, it is recommended that all storm water runoff from the proposed roadway be collected and treated before being discharged to surface waters. In other areas, typical BMPs, including the use of staked hay bales, silt fences, mulching and reseeded, and use of buffer zones along water bodies, are appropriate. The document should include an erosion control plan or reference the State erosion control regulations and a commitment to compliance. Compliance should include both BMP application and long-term maintenance.

*Groundwater:* For each alternative under consideration, the NEPA document should:

- Describe current groundwater conditions in the project area. Any likely impacts to groundwater quality and quantity from the proposed action should be assessed.
- Identify mitigation measures to prevent or reduce adverse impacts to groundwater quality and discuss their effectiveness. The state DOT should work closely with state and local agencies which regulate the protection of groundwater resources (i.e., state health departments and water pollution control agencies.)

*Sole Source Aquifers:* Pursuant to Section 1424(e) of the Safe Drinking Water Act of 1974, all Federal financially assisted projects which have the potential to contaminate designated sole source aquifers (SSA) are subject to EPA review. The NEPA document should identify if there is a designated sole source aquifer in the vicinity of the project and the potential for impacts to this sensitive resource. Segments of the proposed I-69 should be designed in a manner that will prevent the introduction of contaminants into the SSAs in quantities or concentrations which may create a significant hazard to public health. The document should determine whether the proposed project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health, or which may require a public water system to install additional treatment to prevent such adverse effect.

*Public Water Supply Systems:* A concerted effort should be made to avoid locating capacity adding transportation projects within water supply recharge of defined critical areas associated with water supply impoundments and intakes. If unavoidable, any projects that are located in these areas should be carefully designed to avoid or minimize any adverse effects from accidental



spills and runoff. Source water protection areas are areas defined and delineated by each state for the purpose of geographically identifying the surface and ground waters currently used as a source of public drinking water. States are required by the Safe Drinking Water Act, through EPA-approved Source Water Assessment Programs (SWAPs), to conduct a source water assessment at every public water supply in each State. State deadlines for completing source water assessments are dependent upon each state's SWAP approval date.

*Example (Segment 9):* There are no surface water sources of drinking water in Mississippi (MS) in the areas of concern for I-69 (and probably few, if any in Tennessee (TN)). These areas within TN and MS have extensive and very productive confined aquifers that public water supplies typically use. For the well locations in Mississippi, a 3,500-foot radius around each well location will sufficiently capture the source water protection area for these wells. Mississippi is still conducting source water assessments for many of the counties throughout the northern Mississippi Delta and have not specifically delineated the source water protection areas yet. Therefore, a 3500-foot radius will be sufficient.

## **Environmental Justice**

*Background:* Executive Order 12898: (*Federal Actions to Address in Minority and Low-Income Populations*) requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of federal programs on minority or low-income populations. The general purpose is to foster non-discrimination in federal programs and to provide minority and low-income communities greater opportunities for public participation in, and access to public information regarding human health and environmental issues.

In an effort to determine whether there are potential environmental justice (EJ) areas of concern (areas that have high levels of minority and/or low-income populations relative to the reference area), the demographic characteristics of the proposed project area are examined. Information regarding potential EJ areas identified in the screening process is used to ensure that these communities have access to both concise and clear information sufficient to effectively participate in the public involvement process and to ensure that these communities/areas are not disproportionately adversely affected by this project area. Consistent with Executive Order 12898, potential EJ impacts should be considered in the NEPA document. The following items should be incorporated into all EJ analyses related to the I-69 project:

*Demographic Characterization:* The NEPA document should identify potential EJ areas of concern. Appropriate geographic boundaries surrounding the communities that may be potentially impacted by the proposed project must be identified. General screening to identify potential EJ areas involves comparing the minority and low-income characteristics of smaller geographic areas (project area) with those of a larger geographic areas (reference area). U.S. Census data for 1990 (or more recent data if possible) should be used for the minority and low-income analysis. Data should be collected at the block group level for the project area and the county, metropolitan

statistical area, or state for the reference area. The block group data level should be used because it provides the best combination of demographic accuracy and data accessibility. The appropriate reference area should be selected based on the scope and intent of the project. Given the magnitude of the proposed I-69, state-level data should be used as the reference areas. The NEPA document should indicate what demographic threshold or methodology was used to determine whether low-income and/or minority populations exist in the study area. EPA recommends the use of a relative threshold in EJ analyses for determining significant minority and low-income populations. In an effort to ensure inter-regional consistency, the relative threshold recommended for use in I-69 NEPA documents is 1.2 times the State Average of low-income and minority populations. The 1.2 figure is recommended for use because it allows the determination of areas that contain a “meaningfully “ greater percent minority or low- income population than the reference population which is consistent with recommendations from the Interim Federal Interagency Working Group Guidance, EPA Region 4 Interim Policy and other regions EJ Guidance to Identify and Address Potential EJ Areas. This threshold is merely used as a benchmark in determining whether or not a target area has a significant minority or low-income population. Therefore, additional analysis or information may be necessary for certain segments.

The following information includes some data sources or tools that may be used to identify low-income and minority communities:

- Maps provide by state, county and local agencies that delineate political and population boundaries
- U.S. Census Bureau geographic data
- Sources such as Chambers of Commerce, civic groups, trade associations and commercial organizations
- Standard demographic surveys that identify minority and low-income populations
- Local resources such as community and public outreach groups, community leaders, state universities
- Tools such as maps, aerial photographs and geographical information systems

*Environmental Characterization and Impact Assessment:* If percentages of low-income or minority populations are elevated within the project area, alternatives should be considered that avoid or minimize impacts to potential EJ areas. The issue of disproportionately high and adverse impacts should also be evaluated in the document by comparing environmental impact data to EJ information for highway segments. Adverse effects are defined as “disproportionate” if the risk of adverse environmental impacts are predominately borne in areas with minority or low-income populations or if the impacts are greater in magnitude in areas with minority or low-income populations than in other areas. When analyzing these impacts, it is important to assess both the negative and positive impacts, consider both the short and long-term effects as well as the secondary and cumulative impacts. One of the most detrimental aspects of controlled access can be to divide defined communities regardless of whether they are EJ communities. This potential impact must be assessed.



*Public Involvement:* If impacts are unavoidable, EPA recommends that coordination with these affected populations be conducted to determine the affected population's concerns and comments regarding the proposed project. This coordination should include a clear discussion of the project, project updates or expansions, environmental impacts, any economic benefits (job opportunities, etc.) of the project to the affected population; and the opportunity for informal and/or formal comments (e.g., EIS scoping meetings, public hearings, or other public meetings). Because public involvement is an important part of the NEPA process, we recommend early involvement with the potentially impacted communities and documentation of community coordination in the NEPA document.

*Maps:* The NEPA document should contain maps of potential EJ areas of concern within the proposed project corridor. Maps for the route should evaluate population density, minority status, and low-income status.

*Economic Development:* In those segments where economic development is a primary objective, efforts should be made to describe any opportunities the impacted community, especially EJ communities, may have for economic benefit. These opportunities should be described as clearly and in as much detail as possible. For example, the document should discuss how many jobs (or other economic development opportunities) would be created as a result of the proposed project and what percentage of the affected EJ community would likely be the recipient of these opportunities. The document should also address any adverse economic effects on potential EJ communities that may occur.

*Example (Segment 9) -* Based on preliminary EJ screening analysis using 1990 Census data, it appears as though there are a substantial amount of potential EJ communities along Alternative A (Memphis area). Therefore, EPA recommends that additional analysis should be conducted based on some of the recommendations above and that potential EJ communities should be involved throughout the EIS development process.

### **Archeological and Historic Property**

Federal agencies are required to consider the effects of their actions on historic properties that are on or eligible for listing on the National Register of Historic Places in compliance with Section 106 of the National Historic Preservation Act. If identified early, federal undertakings often can avoid historic properties, or minimize adverse effects when avoidance is not feasible. EPA believes the flexibility to merge the NEPA and Section 106 processes, which the revised implementing regulations offer agencies, also can serve to minimize potential conflicts between the natural environment and cultural resources. To gain the greatest streamlining efficiencies, EPA recommends that merging the two processes be considered for segments which may effect historic properties. At a minimum, EPA believes each NEPA document should describe the cultural resources which the undertaking may effect, and demonstrate to the public that appropriate consultation with the State Historic Preservation Officer/Tribal Historic Preservation

Officer (SHPO/THPO) is underway or has occurred. If consultation is completed, EPA also believes any mitigation for adverse effects agreed to through the Section 106 process should be included in the NEPA documentation so the public, as well as EPA, has a complete picture of the action and all of its potential impacts to the environment, both natural and man-made. This enables all reviewers to give better, more informed comments.

Additionally, EPA is concerned that some of the proposed corridors in eastern Texas, for example, may affect sites to which a tribe may attach religious and/or cultural significance. EPA encourages FHWA to work with the SHPO/THPO as appropriate to avoid or minimize effects to such sites as early as possible.

### **Agricultural Land**

The NEPA document should clarify if any agricultural land, specifically prime and unique farmland, would be impacted by the program. If so, the document should use the U.S. Department of Agriculture classification scheme to describe the present use of agricultural land which would be affected. If this acreage includes prime agricultural land (Class 2), consideration should be given to the Council on Environmental Quality (CEQ) guidelines (August 30, 1976 and August 11, 1980) which urge the protection of prime agricultural land. Mitigation measures should be developed to avoid loss of such valuable resources.

### **Biodiversity/Natural Areas**

Biodiversity is defined as the variety of plants and animals (biota) of a site or region, and is typically measured by the number of different species and number of individuals per species. In general, the more diverse an area (number of habitat types and animal inhabitants) and the better represented these components are (population counts), the more rigorous (resistant, undisturbed, natural, "healthy") the area is considered. Consistent with CEQ guidance, the NEPA document should discuss biodiversity aspects of the proposal as appropriate. For example, will the project increase, restore, or decrease biodiversity of the area or region? Coordination with the USFWS/NMFS and the state fish and wildlife agency is recommended regarding the design of any project mitigation areas to enhance or restore biodiversity.

In addition to important natural areas in the vast Lower Mississippi River ecosystem, a number of other critical environmental resources exist in the I-69 project area, such as national and state parks/refuges, wildlife management areas, and other important habitat and greenspace areas on private lands. However, successful protection of natural resources requires more than "spot" conservation of isolated highly valuable and sensitive ecological areas, but also the links between them. One of the biggest threats to the environment is loss of ecosystem functionality due to fragmentation. Roads, agriculture and other development often lead to cutting natural systems into smaller pieces. Large, contiguous tracts of natural land are required not only for species



habitat range, such as migratory birds or black bears, but for ecosystem function. Many ecological processes require large areas of land, often crossing more than one land cover type. Viable landscape linkages are needed to connect these different land types, or the processes are disrupted and their capabilities to function healthily are compromised. For these reasons, conservation must take on the new challenge of not only protecting pristine areas, but ecological connectivity as well.

EPA strongly encourages utilization of existing roads and discourages placement of new interchanges in the vicinity of these areas to minimize potential direct and indirect impacts to these important conservation areas and other important connecting ecological areas. EPA has developed various geographic information system (GIS) tools that attempt to identify linkages between important natural resources. EPA encourages state DOTs in the I-69 corridor to utilize this information for inclusion in the NEPA document in order to refine alternatives such that impacts to these resources could be minimized. Any proposed routing of I-69 on new alignment should be sited to minimize fragmentation of forested areas or other important natural resources in the project areas. Appropriate compensatory mitigation for impacts to these resources or loss of critical ecosystem functions should be addressed in the NEPA document. Coordination between the appropriate EPA Regional Office and other natural resource agencies in the project area is encouraged to identify important areas, habitat connections, and potential mitigation opportunities. EPA Regional GIS points-of-contact are provided at the end of this document.

### **Endangered Species**

The USFWS and NMFS are the agencies with responsibility for overseeing compliance with the Endangered Species Act. EPA recommends early coordination with the USFWS/NMFS and that the NEPA document demonstrate adequate coordination with the USFWS as part of the identification of any listed species in the project area, the potential for adverse effects, and any measures taken to avoid and minimize these impacts. "Adequate coordination" includes either a concurrence letter from USFWS or a biological opinion from USFWS for the species concerned. Mitigation measures (including reasonable and prudent measures) should be incorporated in the appropriate places in the NEPA document.

### **Cumulative and Secondary Impacts**

NEPA requires the analysis and disclosure of the direct, secondary and cumulative impacts of major federal actions on the environment. While the direct impacts of transportation projects may or may not be significant, the secondary or indirect effects of the project on land use and the subsequent environmental effects can be both temporally and geographically more extensive. Similarly, there could be cases where the cumulative impacts would be great due to existing environmental conditions or other projects planned in an area. With respect to transportation projects, such as the proposed I-69, which both appear to serve and induce land use changes, the

analysis of these changes and their subsequent environmental effects is important to the understanding of the overall impact of the federal action on the natural, cultural and socioeconomic environment. Consideration of secondary and cumulative impacts requires the assessment of an area's ability to absorb additional development, the loss of businesses or residences, and the watershed's ability to absorb the loss of additional wetlands.

EPA is concerned about the environmental effects of secondary development in the project study area that would come about as an indirect result of the new roadway. For example, one of the goals for I-69 is to "facilitate economic development and enhance economic growth opportunities domestically and internationally through efficient and flexible transportation with specific emphasis being given to economic growth in the Lower Mississippi Delta Region." In this context, highway investment is meant to attract new businesses and expand existing businesses. If the impact area of interest is the geographic area along the highway, an increase in economic activity is almost certain in this area along the highway. The NEPA document should include a more detailed analysis of the economic and environmental implications of secondary development, focusing more directly within the project study area.

The NEPA document should examine the relative impacts of the various alternatives on potential land use changes. It should not only identify areas for development potential in the project study area, specifically in the vicinity of proposed interchanges, but also the secondary environmental impacts of the projected land use change associated with improved access and economic development. For example, what will be the secondary impact on service-related businesses along existing roadways through towns that will be bypassed? What will be the environmental effects of potential land use change associated with varying degrees and locations of access to the facility? The specific environmental impacts at these areas should be quantified and compared between alternatives, as much as possible. In particular, if there are important existing natural resources, such as high quality wetlands or wildlife habitat, in the vicinity of proposed access points for any of the alternatives, these areas should be identified for potential acquisition as mitigation sites.

A critical aspect to the process will be to provide the local communities with a better understanding of the land use implications that will be expected from implementation of the project. With this information, these communities can develop future land use plans and potential zoning regulations that could be enacted in concert with development of the transportation infrastructure.

The NEPA document should estimate the cumulative impacts associated with the proposed project. Cumulative impacts include the additive effects of a given parameter for all contributing projects in the area, as well as the cumulative impact of all parameters for all projects in the area. The document should define what cumulative impacts would result from implementation of the proposed project. Existing or future projects (federal and non-federal projects) with attendant pollutants should also be considered. EPA also suggests that the spacial/temporal criteria of the analysis be given and that they be uniform throughout the analyses of the interstate highway project, if appropriate given the varied terrain.



As an organizational approach, EPA recommends discussion of the secondary and cumulative impacts of each of the alternatives within each impact section, as opposed to a separate section at the end of the "Environmental Consequences" section. A specific break-out of the direct, indirect (secondary), and cumulative effects is suggested.

### **Public Involvement**

Public involvement should be initiated early and solicited throughout the NEPA documentation process. It is essential to know the values of a community in order to avoid, minimize and mitigate impacts as well as narrow the field of alternatives. The community also needs to understand the tradeoffs and constraints of the process. Some useful strategies that EPA has employed in public involvement throughout the NEPA process includes the following:

- Identify stakeholders – the affected or potentially impacted people and communities with an economic, cultural, social or environmental "stake" in the action. Stakeholders can be identified through conducting community profiles and/or by holding public meetings. State, local and tribal governments; Federal agencies with jurisdiction by law or expertise; civic and environmental organizations; interested or affected private citizens; and communications media should be informed of key upcoming project decisions or milestones throughout the NEPA process. Participants should be sought out through effective outreach methods, such as the utilization of existing community-based organizations and communication networks.
- Make information available in an understandable form. It should be clear, simple and straightforward to encourage mutual understanding and discussion. It should be tailored to the audience, including the provision of bi- or multi-lingual formats, depending on the demographics of the project area.
- Information can be provided via direct mailing, display advertisements, inserts in local newspapers, information hotlines, internet web sites, mall exhibits, open houses, civic meetings, public meetings, and workshops. The media used should be selected for its ability to reach all members of the target audience. For example, notices should be run in papers with diverse readerships, which specifically cater to each sector of the target audience. Multiple public meetings/hearings should be held in locations closest to potentially impacted communities.
- Another successful strategy for community outreach is the establishment of a project office at a central location in the project corridor. The primary benefit of such an office would be to provide qualified project representatives empowered to meet with the public regarding any issue of concern they may have (e.g., environmental or property information, project location, design) throughout all phases of project planning, engineering, and construction.

- Public participation strategies should be designed to avoid conflicts with cultural events and beliefs.
- All public involvement activities and input should be well documented.



## U.S. EPA Regional Points-of-Contact for I-69

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